APRIL 1956

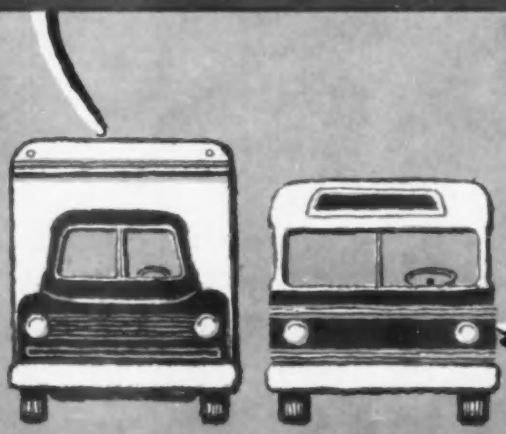
CCJ COMMERCIAL CAR JOURNAL

A CHILTON PUBLICATION

THE MAGAZINE FOR TRUCK AND BUS FLEET OPERATORS



NINETEEN FIFTY-SIX FLEET OPERATORS' REFERENCE ANNUAL



NEW-Dodge offers you a complete line of tandem-axle models



New Dodge bogie unit guarantees you maximum payload capacities!

Now you can get Dodge dependability and low operating costs in a complete line of rugged, all-new six-wheelers.

Capacity ratings range from 25,000 to 46,000 G. V. W., rear-axle capacities from 22,000 to 38,000 lbs.

High-power V-8 engines—from 201 to 220 hp.—give you more than enough power to haul the heaviest loads easily, speedily, safely.

"Walking-beam" bogie keeps all eight rear tires in contact with ground at all times, minimizes bounce, increases tire mileage.

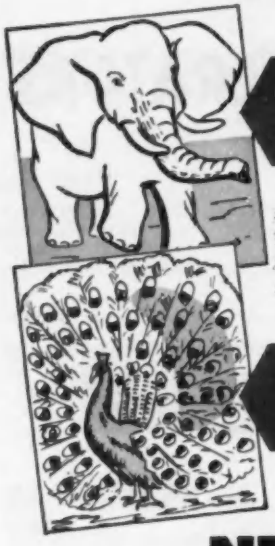
See these new V-8 Dodge tandems. Check them out against any other make and discover why they top the industry.

GET YOUR DODGE DEALER'S DEAL BEFORE YOU DECIDE

DODGE Job-Rated **TRUCKS**

WITH THE *FORWARD* LOOK

Without extra cost...



MORE LOADSPACE

MORE HEIGHT

MORE FEATURES



NEW

OLSON ALUMINUM ALLOY BODIES

by *Grumman*

We've lifted the roof, increased door heights, added glass height to the windshields, provided more foot-room in the rear-bumper step; we've boosted the loadspaces of 8-ft. bodies to 315 cubic feet; 10-ft. bodies to 390 cubic feet and 12-ft. bodies to 460 cubic feet and added bigger blades to the heavy-duty windshield wipers — *all without boosting prices.*

See column at right for other standard features and then see your dealer for Delivery Economies with Bodies by Grumman that Weigh *less,* Dent *less,* Corrode *less* and "Pay for Themselves thru Savings." What dealers? Ford, Chevrolet, GMC or Dodge! Or write to J. B. E. Olson Corporation, 1740 Broadway, New York 19, New York.



New!

- **Loadspace now 73 + inches high inside measure at center.**
- **Increased height of side and rear doors.**
- **Windshield glass height increased 3⅛" — greater visibility.**
- **Capacity: 8-ft. Olsons now 315 cubic feet; 10-ft. Olsons now 390 cubic feet and 12-ft. Olsons now 460 cubic feet.**
- **Bigger rear-bumper step; larger windshield-wiper blades and hinged access to gasoline tank.**

Other Standard Features

- **Max. Width: 78" inside measure.**
- **⅛"-thick Side Panels, Rub-rails, Side Skirts and Rear Panels.**
- **Hinged access to radiator filler cap.**
- **Flat-top Wheelhousings.**
- **Flat-top Engine Cover for desk use.**
- **Three Storage Compartments.**
- **E-Z Eye Safety Glass in Panoramic Windshield.**
- **31" clear-opening side doors.**
- **Roll-type Windows in both side doors.**
- **Rugged 96-lb. Rear Bumper.**
- **38" or 58" rear doors, with or without windows. (Full-opening rear doors available at extra cost.)**
- **Two heavy-duty windshield wipers, left-side rear-view mirror, sealed beam headlights, parking lights, dome spotlight, taillight and 4 reflectors.**
- **Underbodies treated with Koppers' Aerotype Bitumastic Coating.**
- **Completely Insulated Roof, including cab.**
- **Safety-treaded Entrance and Exit Steps.**

PLUS GRUMMAN'S 26 YEARS OF ALUMINUM ALLOY "KNOW-HOW."

J. B. E. OLSON CORPORATION, 1740 Broadway, New York 19, New York Tel. COlumbus 5-4300

COMMERCIAL CAR JOURNAL

1956 FLEET OPERATORS'

EDITORIAL STAFF

Charles Bartlett Rawson, Editor

Murray K. Simkins.....Managing Editor
Ernest S. Forest .....Associate Editor
Jack Colgan .....Special Features Editor
Joseph Geschelin .....Detroit Tech. Editor

Leonard Westrate ....Detroit News Editor
R. Raymond Kay.....Pacific Coast Editor
Howard Kohlbrenner .....Art Director
George Baker, Ray M. Stroupe, Neil R. Regeimbal.....Washington News Editors

Marcus Ainsworth .....Statistician
Paul Wooton .....Washington Member of the Editorial Board

TRUCK & BUS MAINTENANCE — SECTION 1

Service Data Indexed by Makes 69
Truck Service Data 70
Bus Service Data 100
Engine Service Data 104
Fleet Passenger Car Service Data..... 112

Specifications given include engine size, oil pressure, compression pressure, ignition, valves, spark plugs, pistons and piston rings, valve springs, cam, engine head tensions, generator, starter, connecting rods and pins, cam shaft, battery, front end geometry, fan belt, oil and cooling system capacities, lubrication.

Engine Power Ratings..... 114
Spark Plug Heat Range Chart 116

INDUSTRY STATISTICS — SECTION 2

Truck Registrations 118, 119, 120, 121
Truck and Bus Production 119
Trucks in Use 120, 121
Truck Factory Sales 122
Bus Factory Sales 122
New Transit Equipment 122
Intercity Passenger Miles 122
Urban Transit Riders..... 122
Trailer Registrations, Shipments 123
Intercity Truck Tonnage 124
U. S. Government Fleet Operating Facts ... 124

ALSO IN THIS ISSUE

1955 Truck Tonnage by Regions 139
Ford's Desert Proving Ground 156
GMC's Light and Medium Duty for 1956 ... 160
Diamond T Diesel Tilt Cab 162
Safety Films for Truck and Bus Fleets 224
Magnesium Cuts Route Truck Weight 248
Truck and Bus Public Relations Films 258

DEPARTMENTS

The Overload 5
At Your Service 9
Up Front with CCJ 17
Dates and Doings 22
New Product Descriptions.. 52
Fleetman's Library 56
Bulletin Board 64

EPA NBP

COMMERCIAL CAR JOURNAL
with which is combined Operation & Maintenance
Reg. U. S. Pat. Off. Member B.P.A.
RUSSELL W. CASE, JR., Publisher
E. H. MILLER, Adv. Mgr. E. W. HEVNER, Clr. Mgr.
C. W. HEVNER, Asst. to Publisher J. P. JENNINGS, Research

COMMERCIAL CAR JOURNAL is published monthly by Chilton Co., N. W. Cor. Chestnut & 56th Sts., Philadelphia 39, Pa. Subscription price: United States and Possessions, $3.00 per year; all other countries $10.00 per year. Single copies 50¢, except Apr. and Nov.—$1.00. Accepted under controlled circulation at Philadelphia, Pa.

REGIONAL MANAGERS
R. J. BIRCH, San Francisco
GORDON A. BRAUNINGER, Dallas
ROBERT N. CAIRD, JR., New York City
E. E. ELDER, Detroit
L. H. JACKSON, Los Angeles
J. A. LAANSMA, Detroit
FRANK W. McKENZIE, San Francisco
CURTIS F. MOSS, Chicago
WILLIAM P. SAUNDERS, Cleveland
R. M. WERTZ, Chicago

OFFICES
Philadelphia 39, Pa.—Chestnut & 56th Sts., Phone SHerwood 8-2000
Chicago 1, Ill.—360 North Michigan Ave., Phone FRanklin 2-4243
Cleveland 14, Ohio—730 National City Bank Bldg., Phone CHerry 1-4188
Dallas 18, Texas—8557 Eustis, Phone DAvis 7-4176
Detroit 2, Mich.—1015 Stephenson Bldg., Phone Trinity 5-2000
Los Angeles 5, Cal.—3156 Wilshire Blvd., Phone DUnkirk 7-2119
New York 17, N. Y.—100 East 42nd St., Phone OXford 7-3400
San Francisco 4, Cal.—300 Montgomery St., Phone DOuglas 2-4393
Washington 4, D. C.—1091 & 1093 National Press Bldg., Phone EXecutive 3-3474

REFERENCE ANNUAL

APRIL, 1956 VOLUME 91, No. 2
Copyright 1956 by Chilton Company (Inc.)

SELECTION AND OPERATION — SECTION 3

State Size and Weight Limits 126
Safety Equipment Required and Permitted.. 129
Transmission Ratios 132
Transportation Engineering Formulas 133
Third Axle Specifications 134
State Mud Guard Requirements 137
Bus Specifications 138
State Vehicle Inspection Laws 140
Truck Specifications 141
Maintenance Training Films 166
Selected Maintenance Manuals 184

Laugh It Off 66
April News Roundup 164
Fleet Course Calendar ... 246
Among the States 294
Safety Awards 374
Fleet Notes 374
Factory Flashes 377
Introducing 379

One of the Publications Owned by
CHILTON COMPANY (INC.)
Chestnut and 56th Streets, Philadelphia 39, Pa., U. S. A.

Officers and Directors
JOSEPH S. HILDRETH, *Chairman of the Board*
G. C. BUZBY, *President*
Vice-Presidents
P. M. FAHRENDORF — HARRY V. DUFFY
WILLIAM H. VALLAR, *Treasurer* — JOHN BLAIR MOFFETT, *Secretary*
GEORGE T. HOOK — ROBERT E. McKENNA
L. V. ROWLANDS — IRVING E. HAND
MAURICE E. COX — EVERIT B. TERHUNE, JR.
FRANK P. TIGHE — RUSSELL W. CASE, JR.
JOHN C. HILDRETH, JR.

How to prevent a killing



with one finger!

Choose from Yankee's 36 different stock sets of Class A Type I turn signals with manual or self cancelling switches


Low cost Thin-A


Heavy duty reflector type


Low maintenance sealed beam

FOR SAFETY'S SAKE MAKE IT
YANKEE
TURN SIGNALS

Send for complete catalog of fleet safety accessories
YANKEE METAL PRODUCTS CORP., Norwalk, Conn.



It's like a money-making machine for fleet operators

—Goodyear Fleet Battery Maintenance Plan

Want to save a hatful of money by avoiding premature battery failures?

Then send in the coupon below for the free booklet describing Goodyear's Fleet Battery Maintenance Plan.

This plan keeps a constant check on the No. 1 battery killer—*improper voltage regulation*—the only way it can be done.

At each watering, batteries are load-tested with the Goodyear All-Purpose Tester (above) for state of charge—and the findings are recorded on a Fleet Battery Record Card—one for each battery.

Whenever findings go above or below the stripe you see on the Record Card, you know voltage is too high or too low and needs prompt adjustment.

By spending less than two minutes a week per battery, you get longer battery life, longer electrical system service—and fewer road delays.

And the savings continue to grow when you use this plan with Goodyear Heavy-Duty Truck and Bus or Diesel-type batteries. Write today to:

Goodyear, Battery Department, Akron 16, Ohio

GOODYEAR

THE GREATEST NAME IN RUBBER

SEND FOR FREE BOOKLET TODAY!

THE GOODYEAR TIRE & RUBBER COMPANY, INC.
Dept. P-7912, Akron 16, Ohio

Please send me a copy of the Goodyear Fleet Battery Maintenance Manual.

Name

Firm

Street Address

City Zone State

Number of trucks in fleet

We think you'll like "THE GREATEST STORY EVER TOLD"—every Sunday—ABC Radio Network—THE GOODYEAR TELEVISION PLAYHOUSE—every other Sunday—NBC TV Network

The OVERLOAD

EDITORIAL COMMENT

Roulette—Turn Signal Style

AS PART of this special issue which many readers will save for years to come, we'd like to discuss a long range problem rather than a "hot" subject that may be quickly outdated.

(This happened to us last month, incidentally. We commented favorably on the Boggs Bill for highway financing. Then, before the magazine was in readers' hands, the last minute Reed amendment proposed an unsavory tax on heavy vehicles, quite changed the flavor of the Bill. Everyone is hoping that it will be knocked out before the proposal is written into law.)

So this month let's talk about the proper use of turn signals. They'll be with us for some time to come. And unless something is done about it fast, it will be a major problem. Stated concisely, use of the left turn signal should indicate a left turn, not that it is "OK to pass". Yet this practice is more wide-spread than many realize.

We got our first real taste of this danger about 15 months ago. It took us a while and several thousand miles to catch on. Then we learned to play one of America's most intriguing and most deadly guessing games. It works like this.

A passenger car signals to pass. The left blinker on the truck ahead goes on immediately. More often than not this is *supposed* to mean it is OK to pass. But some times it means "Hold it, I'm turning left". The motorist must guess which meaning is right. If he guesses wrong, it's a little like "Russian roulette", can cost his life.

If you haven't yet learned to play, you better get hep and fast. Chances are good that your drivers know it well. And the tough part is that they *think* they are being very helpful. Here's one safety measure on which we can all pitch in. If your safety director does not regularly see this column, please bring it to his attention.

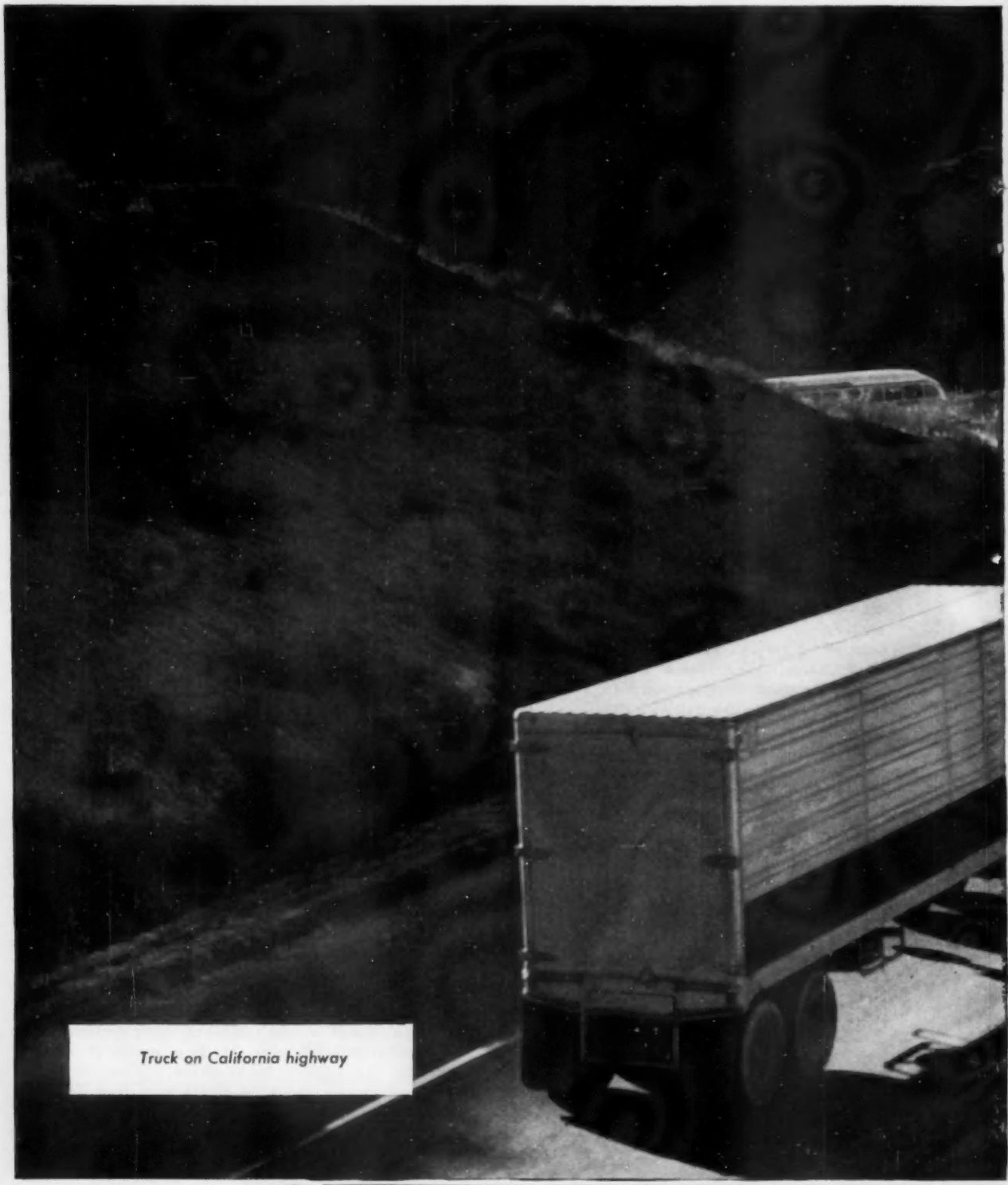
There are a couple of related problems, not nearly so serious, but which have received much more attention. One is the use of turn signals to indicate a change of lane on a four-lane highway. The other is turn signals on a parked vehicle. Neither are strictly according to the book. But both, heaven help us, can save a life.

When a big combination switches from one lane to the other it *can* cause real trouble unless there is some way of signaling. It's hard for us to see the difference between warning of a lane shift and warning of a left turn. Both mean "Hold it, it is not safe to pass". If the signal continues from the left lane and the vehicle slows down it's a pretty good bet a left turn is coming.

Blinkers on a parked vehicle can be very confusing. But at worst they cause traffic to slow down. No driver in his right mind will *pull out* on the strength of his blinker alone.

We mention these related problems here only to further accent the real killer. A turn signal should *never* mean "OK to pass". When we get that one licked, we can tackle the lesser problems in proper sequence with a little room left at the end for that infernal beast of the highway who merrily forgets the d n signal altogether and leaves it on indefinitely.

Bart Rawson
Editor



TUNE IN . . .
TEXACO STAR THEATER
starring
JIMMY DURANTE
on television . . .
Saturday nights, NBC.

TEXACO

TEXACO



Add miles . . . subtract costs

LUBRICATE engines with *Texaco D 303 Motor Oil HD*. You'll pile up more mileage between overhauls, use less fuel, reduce maintenance costs to their lowest. Here's why—

Texaco D 303 Motor Oil HD is made to order for rugged service in heavy duty gasoline and diesel engines. It keeps them clean, unhampered by harmful deposits. Rings and valves stay free for full-power compression and combustion. And the extra-tough film of this great oil checks wear, assures far longer engine life.

For chassis lubrication, use famous *Texaco Marfak* and get unequalled protection against wear and rust. In wheel bearings, *Texaco Marfak Heavy Duty* is your best bet for longer bearing life—and no seasonal change is needed. If you prefer a multi-purpose lubricant—for chassis, wheel bearings, water pumps and other grease-lubricated parts—use the new lithium-base *Texaco Marfak Heavy Duty Special 2*.

To prolong gear life in differentials and transmissions, give them protection that lasts with *Texaco Universal Gear Lubricant EP*.

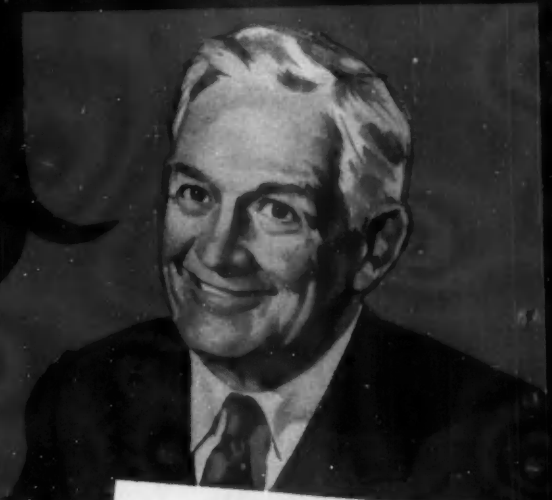
A Texaco Lubrication Engineer has all the information you'll need to put your fleet on a high-efficiency, low-cost basis. Just call the nearest of the more than 2,000 Texaco Distributing Plants in the 48 States, or write:

☆ ☆ ☆

The Texas Company, 135 East 42nd Street, New York 17, N. Y.

Lubricants and Fuels
FOR THE TRUCKING INDUSTRY

HERE'S HOW TO KEEP YOUR VEHICLES RUNNING LONGER BETWEEN OVERHAULS!



Use Sealed Power Sleeve Assemblies

available for these and other popular engines



INTERNATIONAL HARVESTER

This assembly for International RED450 engines contains factory duplicate flanged sleeve, heavy duty PX piston, GI-60 Groove Insert, chrome top ring and chrome steel oil ring.



CUMMINS

Engineered for Cummins NHRS, NHRBS, 300 HP, this assembly has "fire-wall" sleeve to minimize gasket burning and reduce chance of breakage. Forged aluminum piston has special surface treatment.



CONTINENTAL

For Continental F-4162 and Divco 1938-52 UL and UM, this assembly has hardened sleeve with surface-treated aluminum piston, GI-60 Groove Insert, and chrome-faced top compression ring.

Every Sealed Power Sleeve Assembly has sleeve, piston, pin, and rings specifically engineered for peak performance in the individual installation.

Sealed Power KromeX Ring Sets

For all re-ring and re-bore jobs in heavy duty commercial engines, Sealed Power KromeX Ring Sets offer impressive advantages. Top rings in all KromeX Sets are chrome-faced for extreme durability under excessive heat and pressure conditions—and in many cases they are of Sealed Power's Cyclan ring iron. Oil rings have chrome-faced side rails. Fast break-in, quick pick-up, and immediate oil control are assured. Every KromeX Set is individually engineered for the make and model in which it is to be used. Always install Sealed Power KromeX Ring Sets!



GET IT FROM YOUR JOBBER

SEALED POWER CORPORATION • MUSKEGON, MICHIGAN

Sealed Power Piston Rings

BEST FOR RE-RING! BEST FOR RE-BORE!

Sealed Power Motor Parts • The Heart of the Engine • Rings, Pistons, Pins, Sleeves, Valves, Water Pumps



At Your Service

TIMELY NOTES ON MAINTENANCE AND OPERATION

by **MURRAY SIMKINS** Managing Editor

Discard Old Anti-Freeze

YOU SHOULD drain out and discard last winter's anti-freeze—including the so-called "permanent" types, since the anti-freeze solution can turn acid after a season's use, according to du Pont. Corrosive solutions attack the vital parts of the cooling system, producing rust, which can clog up the radiator and the narrow water passages of the engine block. When the flow of coolant is cut down, the engine quickly overheats. Overheating can also cause more serious engine damage: scored cylinders, warped cylinder heads, "seized" parts, burned and sticky valves, etc.

The word "permanent" in anti-freeze means "winter long" or "seasonal"—not year after year. In all parmanent anti-freezes, air and exhaust gases seeping into the cooling system oxidize the glycol, forming harmful acids. As these acids are formed, thev are neutralized by the inhibitors. In time, however, the rust inhibitors are depleted and the solution becomes dangerously corrosive.

The hydrometer will not indicate that the anti-freeze solution has turned acid and is corrosive and the corrosive process cannot be stopped by adding a fresh "dose" of rust inhibitor to old solutions. New inhibitor will only temporarily ward off corrosive action. It cannot eliminate the damaging acid salts already formed by the chemical breakdown in worn-out anti-freeze.

Valve Springs—Plymouth

IT IS POSSIBLE that some V-8 engines may have an apparent valve train noise. It is not always possible to change this condition by adjusting the tappets, as is usually the case.

This light noise can be easily eliminated by rotating the valve springs left to right ¼ to ½ turns. Increase the engine revolutions until the noise is at the highest level and then rotate springs to the new position. The noise may be audible at engine speeds of 3000 rpm but is generally found at 1800 rpm.

Air Line Freezing in Buses

THERE ARE two general types of air line freezing—freezing of the compressor discharge line, and freezing of some line or valve after the main storage reservoirs.

Discharge line freezing occurs when the discharge air is dropped to outside air temperature before the air reaches the No. 1 reservoir. Tendency to freeze is aggravated by:

1. Extremely long line.
2. Small diameter line.
3. Elbows or restrictions in the line at the reservoir end.
4. Excessive air consumption due to high system leakage rate.
5. Compressor inlet air taken from inside the coach, where the air is of high humidity due to passenger breathing.

Tests have indicated that with 12 cu ft compressors 40°F outside air, and heavy air consumption, 8 ft of bare ¾-in. discharge line provides sufficient cooling to keep the air temperature inside No. 1 reservoir within 10°-15° of the outside air temperature, so 8 ft could be considered a minimum length, but it may be marginal for maximum moisture precipitation in hot summer weather. Maximum length depends upon many installation variables.

Freezing after the reservoirs can best be minimized by locating the reservoirs so that they are directly exposed to outside air temperatures and are not subject to radiated or convected heat from the engine system. It is fundamental that moisture can only be pre-

(TURN TO NEXT PAGE, PLEASE)



smart apple

. . . is the mechanic who knows AERO-SEAL Hose Clamps — the new quick attach JET or REGULAR. They never shake open! The precision worm gear drive assures positive self-locking under toughest stress and strain. No thin, pinching, hose-damaging clamp here! AERO-SEAL's wide, smooth band provides even pressure all around. No leaks. Stainless steel band resists corrosion. AERO-SEALS are re-usable many times and available in a complete size range.

Insist on genuine AERO-SEALS for complete satisfaction, bigger profits, happy customers. Ask your jobber.

Aero-Seal JET
QUICK ATTACH HOSE CLAMP

and AERO-SEAL REGULAR WORM GEAR HOSE CLAMPS

BREEZE CORPORATIONS, INC.,
700 LIBERTY AVE., UNION, N. J.

CCJ At Your Service

Continued from Page 9

cipitated from the reservoirs and piping system by air temperature reduction, and if the reservoir location is such that the air is reduced to outside air temperature and not reheated, the water vapor is at a minimum and least likely to precipitate in sufficient volume to freeze at traps in lines and during expansion at control valves. Brake valve supply line should be as short as possible, and both brake valve supply line and compressor discharge line should slope towards their respective reservoirs.

Fire Training Courses

FOURTEEN different fire training courses, each lasting three days, will be conducted during 1956 on the 10-acre fire test field of Ansul Chemical Co., at Marinette, Wis. At the school, Ansul company instructors will teach the latest techniques in fire extinguishment to representatives of industry, government and the municipal fire-fighting services. As in the past, registration, which is on a first-come, first-served basis, will be limited to 25 men for each class to insure maximum benefit to those participating.

Survey Investigates Engine Life

OPERATORS of intercity truck fleets are doing a bigger job—and doing it more efficiently—than ever before, and at the same time are benefitting from greatly improved engine life.

These are among the major conclusions of a survey of "Trends in Heavy Duty Fleet Operation," conducted by the Ethyl Corp. research laboratories in Detroit and currently published. Ethyl's current survey, which has been made annually since 1949, includes almost 2.4 per cent of the nation's heavy-duty intercity truck fleets and represents over 2.5 per cent of the total miles accounted for by heavy-duty intercity trucking operations.

Ethyl's survey divided the fleets into two broad classes—those with engines above and those with engines below 350-cu in. piston dis-

(TURN TO PAGE 12, PLEASE)



"Poor Joe went with another fleet—
then discovered they didn't have full-depth Airfoam drivers' seats!"

YOU MAKE MONEY when drivers retain vigor and alertness. AIRFOAM helps them do it by smothering the bumps, keeping them cooler, more comfortable—*floating* them over the toughest runs.

YOU SAVE MONEY because AIRFOAM outwears all other types of seat cushionings—and saves seat covers, too! Goodyear, Automotive Products Dept., Akron 16, Ohio.

You can get full-depth AIRFOAM



SEATS and BACKS

as original equipment on any truck!

Simply specify **FULL-DEPTH**



Airfoam MADE ONLY BY **GOODYEAR**

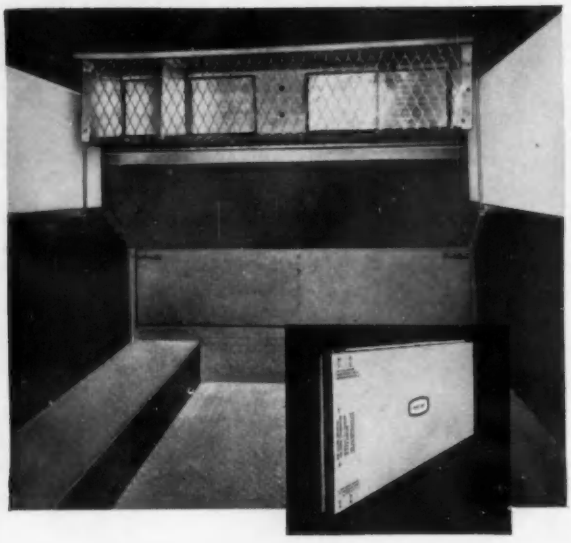
The World's Finest, Most Modern Cushioning

Airfoam—T. M. The Goodyear Tire & Rubber Company, Akron, Ohio

ENGINEERED TO MAINTAIN ANY TEMPERATURE REQUIRED



Cold-Cel **TRUCK PLATES**



In sizes to fit any application. May be installed in a horizontal position suspended from the ceiling, in a vertical position along the walls, or as a partition. Can carry eutectic solutions ranging from −59° to +26°. No moving parts. No servicing necessary. . . . In standard thicknesses and connections: 4-Connection 2⅛", 2⅝"; 3-Connection 1½"; 2-Connection 1".

Write for "Cold-Cels in Action" — a pictorial brochure — or Engineering Catalog CE.

Maximum Refrigeration Efficiency
DOLE
THE Cel LINE

DOLE REFRIGERATING COMPANY
5958 NORTH PULASKI ROAD, CHICAGO 30, ILLINOIS
103 PARK AVENUE, NEW YORK 17, N. Y.
In Canada: Dole Refrigerating Products Limited
44 Elgin Street, Brantford, Ontario



At Your Service

Continued from Page 10

placement. Both groups were found to be carrying a more than 17 per cent greater average gross load in 1954 than five years earlier. This finding, coupled with the fact that average monthly vehicle mileage did not vary greatly during the 1949-54 period, indicates that commercial engines today are working harder than ever.

Witness to the added power of engines and the greater efficiency of gasoline is the fact that the average ton miles per gallon of these heavy-duty fleets increased more than 31 per cent in the period, according to the Ethyl survey, rising from 83 ton miles per gallon in 1949 to more than 109 in 1954. Meanwhile, benefitting from the increased antiknock quality of gasoline, horsepower per cubic inch of displacement of commercial engines rose 14.7 per cent in the period.

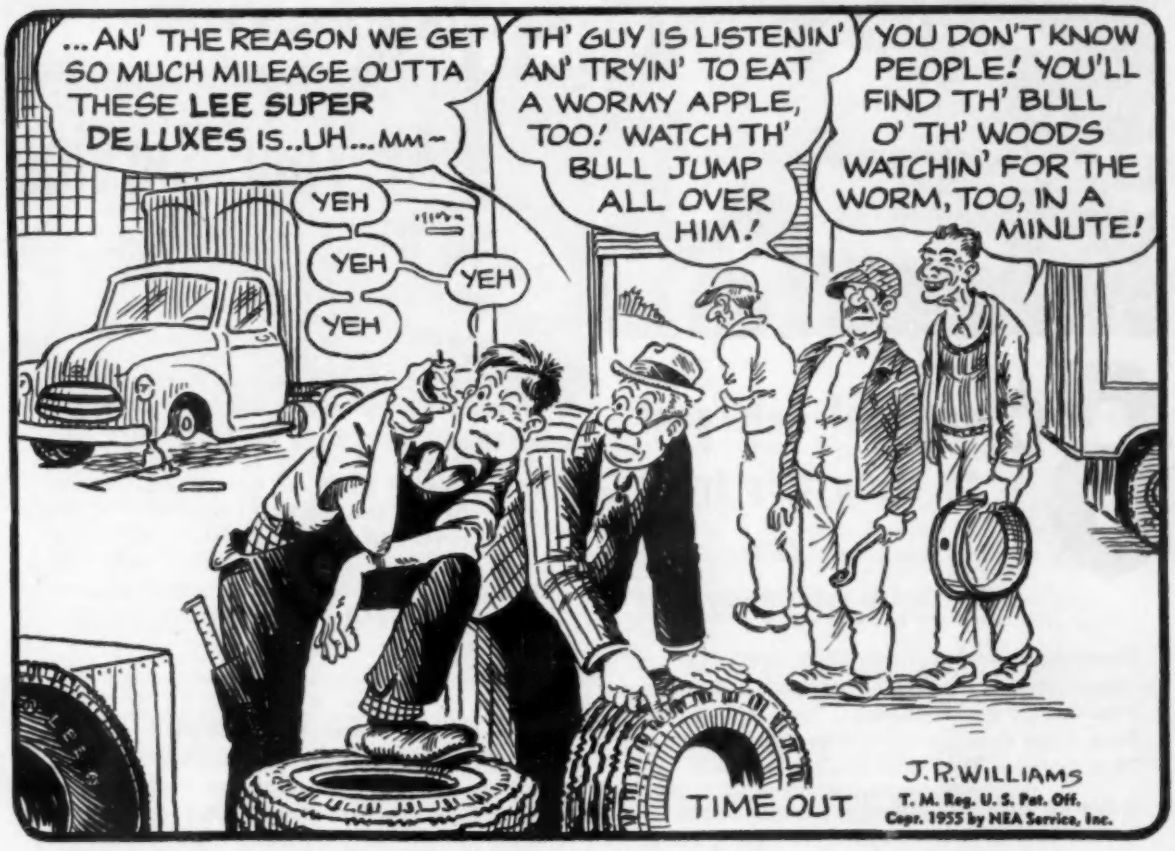
That the tetraethyl lead content of gasoline has no major effect on engine durability was firmly established by the survey. During this period the TEL content of gasoline increased substantially, rising from an average 1.6 milliliters per gallon of regular in 1949 to about 2.2 milliliters in 1954. In the same period, however, the average life of piston rings, intake valves and exhaust valves showed a remarkable improvement.

This is borne out, the survey noted, by a close examination of the experience of all the fleets. In 1949, the surveyed fleets had a mean piston ring life of 62,500 miles. By 1954, this figure had increased to 91,000 miles, for a gain of 46 per cent. Similarly, in 1949, the fleets could expect 45,500 miles of service out of an exhaust valve. By 1954, this had increased 54½ per cent to a level of 69,800 miles.

The fleets covered by Ethyl's survey were operated for a total of 433 million miles in 1954, consumed some 83 million gallons of gasoline and used approximately 1.5 million quarts of motor oil. All but 3 per cent of the fleets used regular gasoline, the majority of fleets obtained their supplies through tank truck deliveries, and the most popular SAE viscosity motor oil used was 30 grade.

(TURN TO PAGE 14, PLEASE)

OUT OUR WAY **by J. R. Williams**



SUPER MILEAGE AT REGULAR PRICE

And you get extra recaps, too, with the Lee Super DeLuxe Highway Tire

Here's what every truck-tire user wants—*extra* original mileage, *extra* recaps, *regular* price.

The flat contour of the deep tread puts the maximum amount of rubber on the road to distribute the load and increase tire life. The rubber itself is best grade natural Smoked Sheet. The tread design provides great traction, prevents cuts from growing into long cracks, and ejects small stones. In the shoulder, the deep-cut design helps throw off heat.

All cords are treated by Lee's exclusive Flexlok process, which reduces heat, minimizes tire growth, and makes cord separation from the rubber bond practically impossible. The carcass features Lee Lubri-Cushions—thin sheets of rubber between every ply. They lubricate the plies, reduce internal friction, and protect against bruise breaks by equalizing the flexing strain over the entire road impact area.

The Lee Super DeLuxe Highway is available in Double-Life rayon or nylon cord. It is an outstanding truck tire buy.

* * *

The complete Lee line, shown below, includes a tire which will lower *your* operating costs by giving longer life, more recaps. Let us prove it to you.



LEE RUBBER & TIRE CORPORATION **CONSHOHOCKEN, PA.**



6¢ worth of detergent to clean this truck

. . . says dairy using Oakite Foam Spray Unit

Recently, a North Carolina dairy decided to go modern in its truck-cleaning operation. It switched from the old bucket-and-brush method to Oakite Foam Spray cleaning, with Oakite Composition No. 70 as detergent. Here is what this dairy reports:

CLEANING TIME CUT. Start to finish, it takes only 15 minutes to bring a soiled truck to sparkling clean condition.

DETERGENT COST CUT. Using an 8 oz/gal. solution, cost of O.C. 70 is less than 6¢ per truck. Reason: powerful O.C. 70, sprayed on as a lather by Oakite's Foam Unit, clings like a leech to sides of truck. No wastage by drip to ground, no wastage between brush and bucket.

And best of all, reports this dairy, trucks come through the fast, low-cost wash looking better than ever,

Your local Oakite Service man will show you how to do a faster, better fleet-washing job at less cost. Call him. Or, for more information on modern truck cleaning methods, write for Booklet F9254 to Oakite Products, Inc., 26D Rector St., New York 6, N. Y.



Oakite Foam Spray Unit, special tool developed for fleet-washing the modern way.

OAKITE

Export Division
Cable Address: Oakite

Technical Service Representatives in Principal Cities of U. S. and Canada

ccj At Your Service

Continued from Page 12

Almost 60 per cent of the fleets equipped with smaller engines (less than 350 cu in. displacement) changed their lube oil every 2000 miles or less, the survey noted, whereas only 34 per cent of the fleets using the larger engines changed their oil that frequently. On the other hand, almost 65 per cent of the larger engine group changed their filters each time they changed their oil whereas only 40 per cent of the smaller engine group followed that practice.

Fruehauf Scholarships

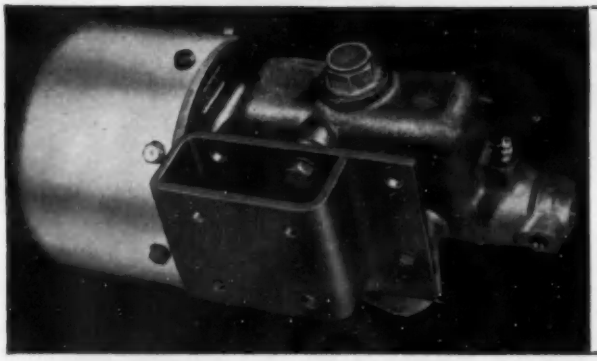
NINETY-SIX college scholarships in motor transport management are being offered by the Roy Fruehauf Foundation and the Fruehauf Trailer Co. in a nation-wide scholarship program. Two scholarships are to be awarded in each of the 48 states to students enrolling in the newly-instituted course in Motor Transport Management at Tri-State College, Angola, Ind.

Selection of scholarship recipients will be based on scholastic records, curriculum pursued, character, financial need, interest in the field of motor transport, and promise of future achievement as indicated in results of Scholastic Aptitude Tests of the College Entrance Examination Board. Applications and test results must be received by Tri-State College at least four months before the applicant plans to begin his studies.

Tubless Wheels

TUBELESS TRUCK wheels designed especially for the car hauler industry have been introduced by Motor Wheel Corp., Lansing, Mich. The new wheels permit car trailers to operate within 96-in. maximum highway width limits when used with 9 x 22.5 tubeless tires, which replace 8.25 x 20 conventional tube tires. The wheels are available with choice of spring-action cone locking nut or double cap nut mounting, in five or six hole design.

For safer air brakes, use these WAGNER AIR BRAKE COMPONENTS



Wagner Power Cluster... the key to safer air-over-hydraulic actuation

Stops up to 26,000 G. V. W. per axle on vehicles equipped with the proper heavy-duty hydraulic foundation brakes.

If you want to add air power to vehicles with standard hydraulic brakes the Wagner Power Cluster is the answer. This amazingly uncomplicated device can convert 100 p.s.i. of air pressure into 1500 p.s.i. of hydraulic pressure. It's safer too, because it permits independent braking on each axle. Your mechanics don't have to be engineers to install the Wagner Power Cluster. It does away with leverage and power cycle calculations...special levers and brackets. Field installations are easy.

COMPACT, SIMPLE CONSTRUCTION—Power Cluster consists of a standard hydraulic master cylinder and a single piston air cylinder.

PROVIDES UP TO 1500 p.s.i. HYDRAULIC LINE PRESSURE—Hydraulic pressure is delivered in an unvarying amount of air pressure metered through the brake application valve.

NO EXTERNAL STRESSES—All braking stresses are balanced out within the self-contained unit.

NEGLIGIBLE FRICTION LOSSES—Efficiency is high because there is no linkage to increase friction loss.

BRAKE ADJUSTMENT INDICATOR—Power cluster "stroke travel indicator" indicates the need for foundation brake lining clearance adjustment.

MINIMUM INVENTORY—Three standardized units provide for every trucking requirement.

SIMPLE FIELD INSTALLATION—No leverages or stresses to calculate. Simply replace vehicle master cylinder with power cluster of comparable size.

ACCESSIBLE LOCATION—The power cluster may be located in any accessible position on the vehicle chassis. It is easily protected from road splash and dirt.

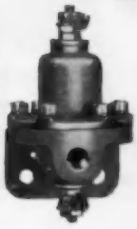
SEPARATED HYDRAULIC SYSTEMS—Operational use of two power clusters provides hydraulic braking systems on each axle when required.



HAND CONTROL VALVE

A "self-compensating action" releases air pressure in direct proportion to hand pressure on handle... permits driver to apply any degree of braking action needed for safe, sure stopping... unit may be mounted on dash or steering column.

SAFETY AND WARNING DEVICES



LOW PRESSURE INDICATOR
Warns if reservoir tank pressure should drop below the safe operating limit.



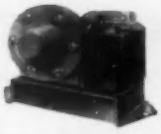
PRESSURE REDUCING VALVE
Used whenever necessary to control maximum delivered pressure at a value lower than pressure in main reservoir. It may be used with an auxiliary reservoir if a large volume of air at reduced pressure is required.



AIR GAUGE



AIR STOP LITE SWITCH



SWITCH AND BUZZER

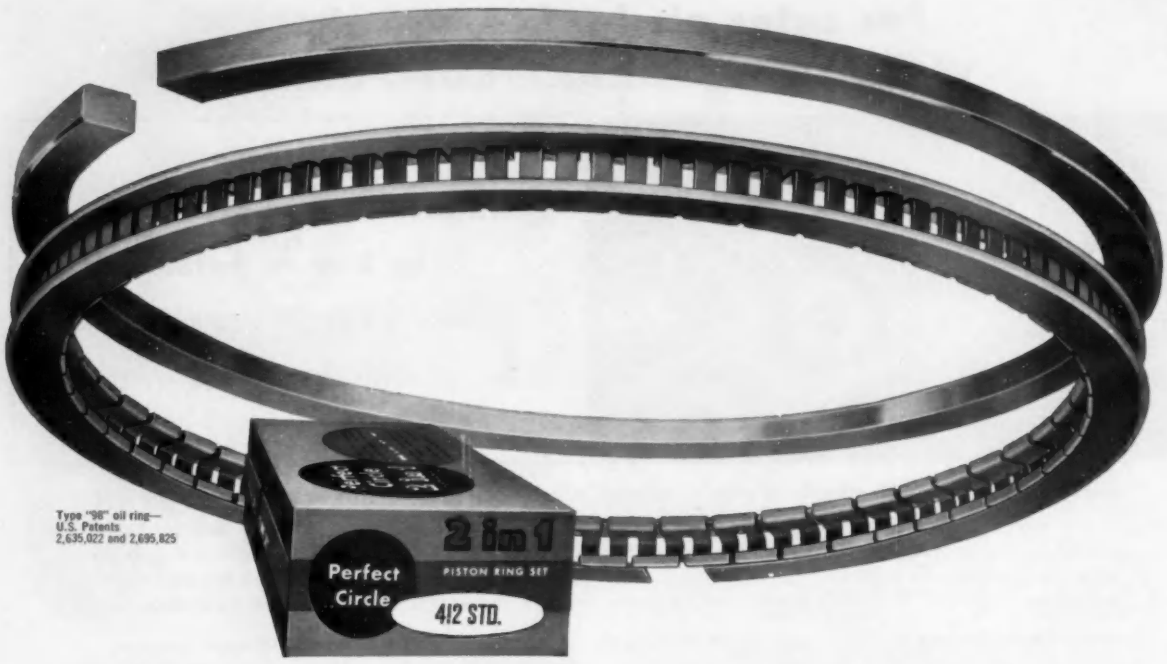


SAFETY VALVE

Wagner Electric Corporation 6470 PLYMOUTH AVENUE • ST. LOUIS 14, MO., U. S. A.



LOCKHEED HYDRAULIC BRAKE PARTS and FLUID • NoRoL • CoMoX BRAKE LINING • AIR BRAKES • AIR HORNS • TACHOGRAPHS • ELECTRIC MOTORS • TRANSFORMERS • INDUSTRIAL BRAKES



Type "98" oil ring—
U.S. Patents
2,635,022 and 2,695,825

COMPARE

for features that mean PERFORMANCE

Perfect Circle 2-in-1 chrome set with the New type "98" chrome oil ring

● Top compression ring is specially designed to perform where pressures are greatest, heat is highest, lubrication is poorest.

● Type "98" chrome oil ring with self-expanding spacer assures uniform seal against cylinder wall. And it provides a positive side sealing action on the ring groove. More than half of all passenger cars produced in the U.S. in 1955 were equipped with Perfect Circle Type "98" chrome oil rings.

● Both rings are plated with thick, solid chrome that resists wear, more than doubles the life of cylinders, pistons and rings. Means thousands of *extra* miles of positive oil control and sustained power—what every car owner wants!

Perfect Circle

piston rings

The standard of comparison

Perfect Circle Corporation, Hagerstown, Indiana; The Perfect Circle Co., Ltd., Toronto, Ontario.



UP FRONT WITH CCJ

APRIL, 1956, FLEET HIGHLIGHTS AS REPORTED BY COMMERCIAL CAR JOURNAL

MR. EXECUTIVE, At press time, latest word on the Interstate Commerce Commission's interim emergency brake order was that it would make its appearance middle of this month. Still in substantially the same form as reviewed last month (Mar., page 108), the regs are expected to apply to new equipment within 60 days of the order with existing equipment allowed six to seven months to comply. Probability is that separate orders will be written for air and vacuum brake systems. With the interim regs out of the way, plans will proceed for extensive vehicle brake testing to provide a sound basis for more permanent brake rules.

ROAD FAILURES occur about once every 18,700 miles, says American Trucking Assns.' Equipment and Maintenance Council. Out of the 11,255 road failures reported in the Council's year-old Road Failure Contest, tires and tubes caused 26.3 per cent, electrical 19.6, fuel and exhaust 12.1, engine 11.9, brakes 8.6, cooling 6.06, rear axle 4.86, transmission 3.62, clutch 1.81, cab and body 1.42, propellershaft 1.41, frame 1.26 and front axle 1.06. A full report on the contest will be one of the highlights of the Council's annual spring meeting next month when the winners will share in $2500 prize money donated by Champion Spark Plug Co.

FEDERAL TAX of $1.50 per 1000 lb a year on trucks with a "taxable" gross weight of over 26,000 lb was included in HR 9075, the highway financing bill, when it was reported out of committee late last month. As defined in the bill, "taxable" weight includes the unladen weight of the vehicle or combination fully equipped for service plus the weight of the maximum load usually carried on vehicles of its type. ATA termed the truck tax "inequitable and unjustified." The Association's strategy, since the bill cannot be amended on the House floor, is to press for passage there and then convince the Senate Finance Committee to delete the truck tax provision.

HIGHWAY BUILDING legislation (HR 8836) has to be put in shape before the House can act, however. Plans are to combine HR 9075 and HR 8836 into one bill for House floor action. Biggest delay in the highway building proposals is the controversy over whether or not states should be reimbursed for toll or free roads incorporated into the Interstate System of Highways. Solution at press time was a provision asking the Secretary of Commerce to determine how much such reimbursement would cost and leave the decision up to Congress in 1958. Probable time schedule calls for Committee approval of the highway building bill early this month and House debate on the combined highway measure beginning the middle of the month.

DETROIT DISPATCH

LARGE FLEET OPERATORS IN the Detroit area queried by Commercial Car Journal take a dim view of reports in a leading financial paper that higher rates are driving more shippers into setting up their own truck fleets. They report they have not noticed any more than the normal trend in expansion of private fleets. They point out that only certain large companies can afford the investment and then only when they have a two-way haul. At any rate, the operators are not particularly concerned that private fleets will greatly affect contract carrier business.

GVW RATINGS ON trucks are likely to go up. Despite agreement several years ago, some manufacturers still are not making GVW certifications uniform. Probable reason is state registration laws. Some states use manufacturers' ratings, others permit a higher GVW on payment of an increased fee. The practice upsets factory warranties, poses a difficult competitive problem. Truck builders would like to see axle suppliers uprate their axles to allow higher GVW ratings.

CHASSIS DESIGNED solely for tractor use may be in the cards. ATA is expected to have specifications for an "ideal" tractor ready by May. It's supposed to incorporate features the truckers have asked for in a tractor. Makers will be invited to evaluate the design.

TRUCK DESIGNERS WOULD like to go inboard with wider brake drums to increase capacity but are cramped by space limits owing to spring mountings and other chassis members. Trailer builders have less complication, actu-

WASHINGTON RUNAROUND

LEASING REGS HAVE been amended by the ICC. Changes made affect household goods carriers, rental of equipment by common carriers, records to be kept on leased equipment and identification of leased equipment. Details appear on page 288, this issue, and affected carriers have until April 23, 1956, to submit written statements to the Commission.

BOTH ATA'S Private Carrier Conference and the Private Truck Council of America continue to urge passage of S 898 despite the proposed changes. This would bar the ICC from regulating the duration or compensation of leases in respect to private carriers, farmers and farm cooperatives, livestock carriers and fish carriers.

TWO NEW ICC Commissioners have been approved by the Senate. They are Donald P. McPherson of Pennsylvania and Laurence K. Walrath of Florida.

DOES THE ICC Act limit motor carrier subsidiaries of railroads to service "auxiliary or supplemental" to the rail service of the owning railroad? ATA has asked the Supreme Court to answer this question in an appeal from an ICC decision granting unrestricted truck rights to the Rock Island Motor Transit Co., a wholly-owned subsidiary of the Chicago, Rock Island and Pacific Railway.

ICC DISCRIMINATES against small fleet operators, says a report from the Senate Small Business Committee. Cited were difficulty in getting rights, forcing to yield rights, denial to use alternate routes, empty back-haul, restrictive leasing regulations, approval of mergers in the trucking field. Said Committee member Senator Schoeppel in a minority view attached to the report, "The Committee report relies on the statements of very few motor carriers and two shippers..."

ATA FOUNDATION HAS received grants of $35,000 from B. F. Goodrich Co. and $50,000 from General Tire & Rubber Co., representing renewed participation by both in the Foundation's promotion of the trucking industry. The Goodrich funds will be used for magazine and newspaper advertising promoting better highways for safety. General's funds will go for highway

ally could go to a trailer live axle on which could be mounted brakes of almost any practical dimensions and which would go a long way toward solving the brake problem on combinations. One of the trailer companies is thinking about the idea.

GENERAL MOTORS IS expected to be hit with an anti-trust charge by the Justice Dept. for alleged monopoly of the bus market. Justice officials say GM has 80 per cent of the market and that several companies have gone out of business since the end of the war.

EDWARDS TRAILER CO. WILL be absorbed into its parent company, Copco Steel and Engineering Co. Plans are to continue Edwards operation plus a substanial expansion in a new Copco Trailer Division.

billboard advertising and radio promotion on the economic importance of trucking.

EASTERN RAILROADS HAVE asked court permission to file a $120 million anti-trust suit against the truckers who launched their own $250 million claim against the railroads three years ago. If approved by the court, it would be heard as a counter-claim to the truckers' suit scheduled for trial in October. PMTA says the railroads merely want to delay the trial and are seeking a bargaining weapon in a possible settlement of the $250 million claim.

SONYA SAROYAN'S CHARGE that the truckers' welched on a promise to pay her $25,000 for her participation as a key witness in the $250 million suit (Mar., page 19) was turned over to a federal grand jury in Philadelphia by the judge. However, she failed to put in appearance when invited to state her case before the group.

SAFETY SLOGANS ON the reverse side of highway billboards are being promoted under the sponsorship of the Roadside Business Assn.

TRUCK TONNAGE

FOR 1955, ATA's truck loading index stood at a record 177. Volume of intercity freight during the year was 15.2 per cent above 1954 and 10.6 per cent more than the previous record year of 1953. (Index numbers by regions and tonnage by commodity class appear on page 124, this issue. Tonnage by regions for 1955 and the fourth quarter appears on page 139.) Further, say the reports from ATA's Research Dept., January intercity general freight was up 12.9 per cent above January, 1955, and 3.4 per cent more than December, 1955. Highest January increases were recorded in the Northwestern region with 22.9 per cent and Middle Atlantic with 20.4.

Month	% Change from Previous Month	% Change from a Year Ago
January, 1956	+ 3.4	+12.9
12 Months, 1955	.....	+13.7
December, 1955	− 6.3	+11.9
November, 1955	− 0.9	+17.0
October, 1955	+ 1.5	+19.2
9 Months, 1955	.....	+14.0
September, 1955	+ 1.2	+17.0
August, 1955	+21.3	+20.9
July, 1955	−11.6	+ 8.7
6 Months, 1955	.....	+14.2
June, 1955	− 0.9	+13.2
May, 1955	+ 0.2	+22.0
April, 1955	− 5.0	+13.0
3 Months, 1955	.....	+12.2
March 1955	+17.0	+13.0

IN THIS ISSUE . . .

. . . is the latest **MAINTENANCE SERVICE DATA** for equipment made by 22 truck makers, six bus producers, eight independent engine manufacturers plus six fleet passenger car models. Also in this section are 1956-revised **ENGINE POWER RATINGS** and **SPARK PLUG HEAT RANGE** data. This section is indexed by makes on page 69.

. . . are eight pages of truck, bus, trailer and fleet operation **STATISTICS,** including latest available data. You'll find truck and trailer registrations, bus and truck factory sales, trucks in use, trailer shipments, truck tonnage and bus riders, U. S. government fleet cost figures. Index for this section is on page 117.

. . . two new charts have been added to the **SELECTION AND OPERATION** section, state-by-state digests of **MUD GUARD** requirements and **VEHICLE INSPECTION** laws. Corrected to March 15, 1956, are state **SIZE AND WEIGHT LIMITS** and required **SAFETY EQUIPMENT** charts. Also here are current **TRUCK AND BUS SELECTION** specifications, **THIRD AXLE** specifications and **TRANSMISSION RATIOS.** See page 125 for a special index of this section's features.

The Road Ahead



TRANSPORT POLICY PUBLIC HEARINGS ARE scheduled to begin April 24 before the House Subcommittee on Transportation and Communications. Fleet operators interested in appearing should contact the Clerk of the Committee, 1334 New House Office Bldg., Washington 25, D. C. Hearings will be on HR 6141 (reviewed in full, Sept., '55, page 74), a bill incorporating the recommendations of the Cabinet Committee on Transport Policy. ATA's position, as voted by its Board of Directors at last fall's annual convention, is "complete opposition" to both the Committee's report and the legislation.

COMING EVENTS OF importance to truck fleet operators include the joint annual spring meeting of ATA's Equipment and Maintenance Council and Council of Safety Supervisors. Dates are May 15-18 with the sessions to be held at the Sheraton Hotel, Chicago. On the west coast, it's the National Truck, Trailer and Equipment Show sponsored by the Automotive Council of Los Angeles. It will be held June 14-17 in the Great Western Exhibit Bldg., Los Angeles, Cal. (Details on the three events begin on page 164, this issue.)

WASHO ROAD TEST IS the subject of a 16mm, color film available for public showing. It can be borrowed from Bureau of Public Roads. If you want to buy a copy, you have to promise BPR that you won't add or subtract from the film and that you'll show the entire film. This requirement was added as a result of anti-truck use of a doctored version of BPR's Maryland Road Test film in several western states.

NATIONAL DEFENSE WILL get a boost from truck fleet cooperative safety patrols. Pattern is being set in Pennsylvania with the state's truck association doing the coordinating. Members of PMTA's Cooperative Safety Patrol are invited to join in formation of an Auxiliary Police Unit. Says the bulletin from PMTA's Council of Safety Supervisors, "In the event of an extreme emergency such as an enemy attack on our country, this unit would be activated and placed under direction of the Pennsylvania State Police and used to facilitate the movement of truck convoys carrying emergency supplies into critical areas, assist existing police authorities in the control of traffic, etc."

TON-MILE TAX IN New York is under fire. Truckers are being urged to support a bill (Senate No. 2920, Assembly No. 3811) now being debated by that state's legislature. It provides for (1) weight-distance tax repeal, (2) enactment of a requirement that truck-operators pay fuel tax on all fuel used in the state.

JANUARY PRODUCTION IS off to a good start as compared to January a year ago except for replacement tire shipments (see chart below). Latest estimates of truck production for the first quarter are 10½ per cent ahead of first quarter, 1955. (Beginning on page 117 this issue, are detailed statistics for 1955).

In thousands of units, except bus sales are in actual numbers	New Truck Registrations	Truck Factory Sales—Domestic	Truck Trailer Shipments	Bus Factory Sales—Domestic	Truck and Bus Tires		
					Replacement Shipments	Original Equip. Shipments	Inventory End of Jan.
	January	January	January	January	January	January	
1956	66.1	83.8	4.8	242	629.4	444.0	2970.6
1955	62.2	73.9	4.5	185	626.8	303.3	2568.4

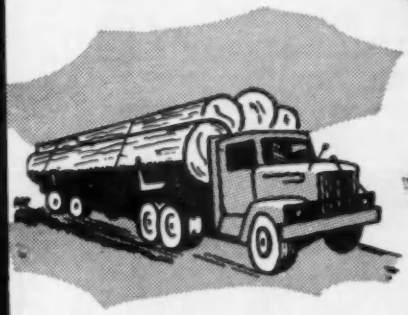
LCPM

LESS COST PER MILE

with GOULD KATHANODE

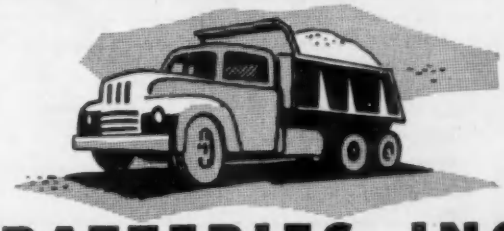






MULTI-POWER BATTERIES

There are no ifs, ands or buts. We can positively cut your bus, truck or diesel battery costs substantially. Your GOULD Jobber will be glad to show you how.



GOULD-NATIONAL BATTERIES, INC.

ST. PAUL 1, MINNESOTA





COMPARE! COSTS 1/3 LESS

this steam cleaner saves hard cash on dozens of tough maintenance jobs

You'll save HUNDREDS—of dollars and man-hours—with a Vapor Upgrader Jr. Steam Cleaner. Its initial cost is one-third lower than comparable machines. Compact, portable. One man and the Upgrader Jr. can do 95% of all steam-cleaning jobs is less time, at lowest cost. Pressures up to 125 p.s.i. Controllable output, 100 g.p.h. It's safe, simple—easy to transport, to use. Write today.

VAPOR HEATING CORPORATION

Also manufacturers of high-volume, forced-air WAIKIKI Heaters

80 E. Jackson Boulevard, Chicago 4, Illinois

Vapor Car Heating Co. of Canada Ltd., 65 Dalhousie St., Montreal 3

VAPOR HEATING CORPORATION, 80 E. Jackson Blvd., Chicago 4 Ill. Dept. D-8

Please send me free new Bulletin on:

☐ UPGRADER JR., ☐ Waikiki Heaters

☐ Send me information about your Time Payment Plan.

Individual_____ Title_____

Company_____

Street_____

City_____ Zone____ State_____

DATES and DOINGS

APRIL

20-21—Alabama Trucking Assn., Annual Meeting, Hotel Admiral Semmes, Mobile, Ala.

20-21—Wyoming Trucking Assn., Annual Meeting, Hotel Townsend, Casper, Wyo.

20-22—New Jersey Motor Truck Assn., Annual Convention, Hotel Berkeley Carteret, Asbury Park, N. J.

22-26—National Tank Truck Carriers, American Trucking Assns., Shoreham Hotel, Washington, D. C.

26—Maine Truck Owners Assn., Annual Meeting, Hotel Lafayette, Portland, Me.

28-May 6—International Automobile Show, New York City Coliseum, New York, N. Y.

29-May 2—Operations Council, American Trucking Assns., Annual Meeting, Sheraton-Cadillac Hotel, Detroit, Mich.

30-May 2—Chamber of Commerce of the U. S., Annual Meeting, Washington, D. C.

MAY

2-4—American Transit Assn., Region II Conference, Lord Baltimore Hotel, Baltimore, Md.

2-5—Local Cartage National Conference, American Trucking Assns., Roosevelt Hotel, New Orleans, La.

7-10—American Gas Assn.-Edison Electric Institute, Joint Motor Vehicle Committee Meeting, Congress Hotel, Chicago, Ill.

8-10—National Highway Users Conference, Highway Transportation Congress, Washington, D. C.

8-11—Equipment and Maintenance Council, American Trucking Assns., Spring Meeting, Sheraton Hotel, Chicago, Ill.

8-11—Council of Safety Supervisors, American Trucking Assns., Spring Meeting, Sheraton Hotel, Chicago, Ill.

10-13—Georgia Motor Trucking Assn., Annual Meeting, Hotel General Oglethorpe, Savannah, Ga.

10-13—Southwest Automotive Show, Houston Coliseum, Houston, Texas.

13-19—Regular Common Carrier Conference, American Trucking Assns., Board of Governors Meeting, Edgewater Park, Miss.

15-18—Equipment and Maintenance Council, American Trucking Assn., Spring Meeting, Sheraton Hotel, Chicago, Ill.

20-23—Washington Motor Transport Assn., Annual Meeting, Davenport Hotel, Spokane, Wash.

22-24—Ohio Trucking Assn., Annual Convention, Commodore Perry Hotel, Toledo, Ohio.

24—Rhode Island Truck Owners Assn., Annual Meeting, Sheraton-Biltmore Hotel, Providence, R. I.

25-26—Southeast Automotive Show Trade Conference, Asheville, N. C.

26—Maryland Motor Truck Assn., Annual Meeting, Lord Baltimore Hotel, Baltimore, Md.

JUNE

3-6—Automotive Engine Rebuilders Assn., Annual Convention, Hotel Sherman, Chicago, Ill.

3-8—Society of Automotive Engineers, Summer Meeting, Chalfonte-Haddon Hall, Atlantic City, N. J.

7-9—Pennsylvania Motor Truck Assn., Annual Meeting, Penn-Harris Hotel, Harrisburg, Pa.

7-9—Texas Motor Transportation Assn., Annual Meeting, Hotel Shamrock-Hilton, Houston, Texas.

11-15—National Plastics Exposition (including truck bodies and other automotive components), New York City Coliseum, New York, N. Y.

14-17—National Truck, Trailer and Equipment Show, Los Angeles Automotive Council, Great Western Exhibit Bldg., Los Angeles, Cal.

20-21—Executive Committee, American Trucking Assns., Washington, D. C.

21—Empire State Highway Transportation Assn., Annual Meeting, New York Athletic Club, Travers Island, Pelham Manor, N. Y.

Contractor's 120-Truck Fleet uses VANASIL PISTONS 100%

G. A. YOUNG, VICE PRES.
J. T. R. PASELK, TREAS.

CLEMENTS CONSTRUCTION CO.
CONTRACTORS
210 SEQUOIA RD. • P. O. BOX 667 • CENTERVILLE 8-8306
CENTERVILLE, CALIFORNIA

RONALD D. COATS, PRES.
M. STAVERT, SECY.

April 22, 1955

Gillett & Eaton, Inc.
Lake City, Minn,

Gentlemen:

About two and a half years ago we began using your Vanasil Pistons in our heavy duty trucks and pickups. Their performance is so far superior that at the present time our entire fleet of more than 120 trucks is Vanasil equipped.

We have noticed a very definite improvement in the operation of every truck and engines are running many more miles between overhauls. When the engines are reconditioned after much longer use, we find no excessive piston or top ring groove wear and little cylinder wall wear.

It is difficult to get an accurate gasoline consumption check with our type of operation, but everyone including the drivers feels that we are getting better gas milage and also low oil consumption.

But to our complete satisfaction with the performance of Vanasil Pistons, we are now installing them in our stationary engines and tractors as they come due for overhaul.

Very truly yours,

George A. Young

George A. Young
Vice President

Clements Construction V.P. George Young reports:

- ★ **Better engine performance**
- ★ **More miles between overhauls**
- ★ **Less top ring groove, cylinder wall wear**
- ★ **Better gas and oil economy**

HERE'S DIESEL PERFORMANCE!

Denver—90,000 miles
in a 300 H. P. Cummins Diesel—and Vanasil Pistons were found to be perfect when engine was disassembled.

Ft. Bragg, Cal.—83,750 miles
in truck No. 23 with Cummins NHRS 300 engine. "Miking" the pistons showed no wear and ring grooves were perfect. Vanasil Pistons were put back in service with a new set of sleeves and rings.

(Names of above operators on request.)

G & E VANASIL PISTONS

are as light as aluminum, but wear like iron! Vanasil is a patented silicon-aluminum alloy that absorbs oil—minimizes scoring and scuffing. Available for both gasoline and diesel engines. Write for price lists and the complete Vanasil story.



Offices—Clements Construction Co. Centerville, Calif.



Part of Clements 120-Truck Fleet 100% equipped with Vanasil Pistons

VANASIL Piston Warehouse Stocks:

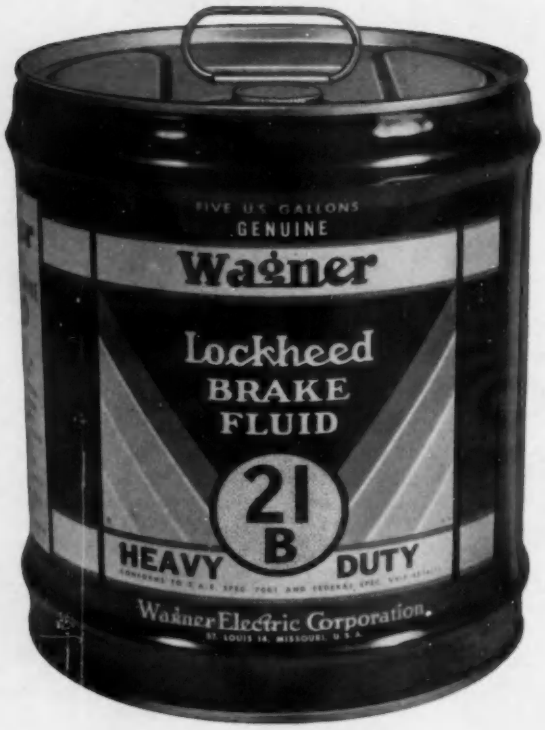
CALIFORNIA	Automotive & Industrial Whse. Co., 1341 So. Hope St., Los Angeles 15 Piston Supply Warehouse, 2768 Grove St., Oakland 12
COLORADO	Denver Bearing Co., 780 Lincoln St., Denver 2
NEW YORK	Bethlehem Equipment Co., 109 W. 64th St., New York 23

Established 1868

GILLETT & EATON, INC.

802 Doughty St. • Phone 6201 • Lake City, Minn.

Be SAFE... Be SURE... use



You can safely rely on
21-B HEAVY DUTY HYDRAULIC BRAKE FLUID

- It's recommended for trucks, tractors, buses, and other heavy-duty vehicles and for passenger cars where a heavy-duty fluid is recommended.
- Functions in all seasons and under all operating conditions.
- Surpasses specifications of Society of Automotive Engineers.
- Protects brake system against corrosion, gummy residue deposits, and swelling of rubber parts.
- Does not evaporate rapidly.
- Mixes with all approved fluids.
- Amply lubricates the system.
- Available in 12-oz., quart, gallon, 5-gallon, 30-gallon, and 54-gallon containers.

Get ALL your requirements from ONE source...your WAGNER jobber



WAGNER BRAKE BLOCKS. Available in hundreds of sets to cover wide range of sizes.



WAGNER LOCKHEED BRAKE FLUID. Chemically balanced . . . it surpasses S.A.E. specifications.



WAGNER LOCKHEED HYDRAULIC BRAKE PARTS. Cover every make and model of vehicle.

You can depend upon Wagner Quality because Wagner Products are used as original equipment by manufacturers of cars, trucks, buses, and trailers.

H56-9

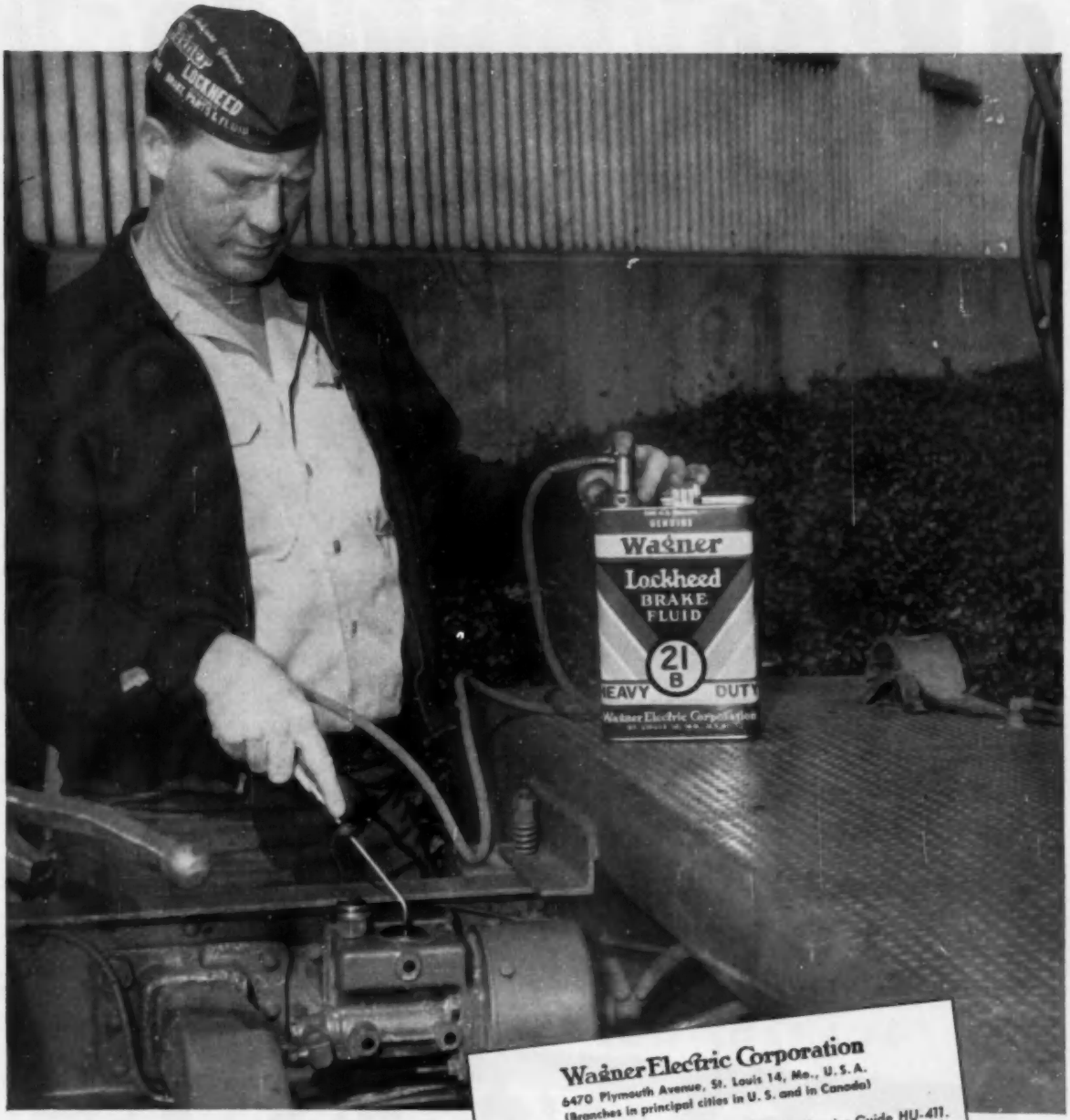
Est. 1891

Wagner

...the best known name in brake service

LOCKHEED HYDRAULIC BRAKE PARTS and FLUID . . . CoMaX BRAKE LINING . . . HoRoL . . . AIR HORNS . . . AIR BRAKES . . . TACHOGRAPHS

Wagner® Lockheed!



Wagner Electric Corporation
6470 Plymouth Avenue, St. Louis 14, Mo., U. S. A.
(Branches in principal cities in U. S. and in Canada)

Please send me a free copy of Hydraulic Brake Service Guide HU-411.
I understand that there is no obligation.

NAME _____

FIRM _____

ADDRESS _____

CITY, ZONE & STATE _____

ELECTRIC MOTORS . . . TRANSFORMERS . . . INDUSTRIAL BRAKES

Any way you look at it
a Blackhawk Jack



LIFE-SAVER PUMP

Pump cups operate within a smooth micro-finish steel housing (NOT in a hole bored in base casting). Low-cost pump assembly is easily replaced in the field with an ordinary wrench. Years are thus added to jack's life.

RAMROD RIGIDITY

Malleable iron top cap is another big reason why Blackhawk jacks take almost incredible abuse. Has super strength to withstand off-center loads — gives extra rigidity to the entire jack and helps prevent leakage.

BLACKHAWK®

Blackhawk Mfg. Co., Dept. No. J-1146, Milwaukee 46, Wisconsin

WORLD'S LARGEST MANUFACTURER OF

. . . here's why
is your best bet!



SHARP AS A HOUND'S TOOTH

Note special cross-milled, heat-treated saddle on the Blackhawk jack — for safe, sure grip on greasy, icy axles. Teeth stay sharp as a hound's tooth — never wear smooth like ordinary saddles.

NO ORPHAN PARTS

On all 1½ to 20-ton hand jack models, there's 68% working parts interchangeability — to speed servicing, cut maintenance costs. A few dollars of parts inventory easily and quickly takes care of all common repairs.

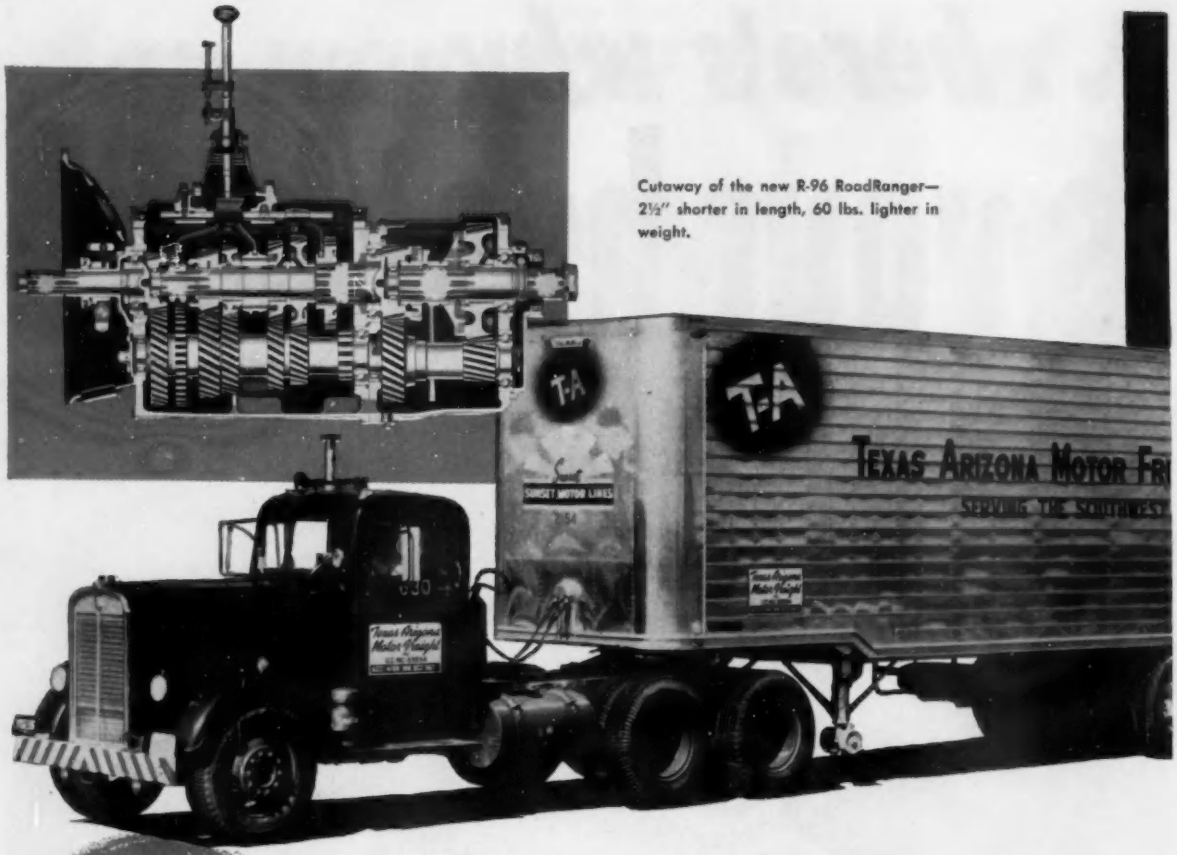
IT ALL ADDS UP TO "LOW-COST LIFE"

And remember — Blackhawk design means the right jack for every highway and shop jacking job. It means brute stamina to handle bigger and bigger loads, greater lifting spans, broader range of applications.

See why so many fleets prefer Blackhawk jacks! *Right on your desk* you can have an actual demonstration of Blackhawk's 68% parts interchangeability and *why* a Blackhawk jack outlives the truck it lifts — outperforms any other jack for efficiency and low-cost, trouble-free maintenance. Ask your Blackhawk jobber for this "Jack-in-a-Pak" demonstration — proof that it will pay you to standardize on Blackhawk jacks!

HYDRAULIC TOOLS





Cutaway of the new R-96 RoadRanger—2½" shorter in length, 60 lbs. lighter in weight.

T-A *adds* **30** *Fuller* ROADRANGERS®

. . . to better serve the Southwest

When the Texas-Arizona Motor Freight Lines, Inc. of El Paso added 30 new Kenworth Model 522 tractors to their fleet, *ALL* were equipped with Fuller 10-speed Semi-Automatic ROADRANGER Transmissions. The tractors are powered by 200 hp diesels with pressure-time fuel systems.

Texas-Arizona operates on long runs in the "big country" where it is *hot* . . . where not only regular rigs must maintain fastest schedules, but *no time out* is allowed for delaying reefers with perishable produce.

That's why T-A selected Fuller ROADRANGERS with:

- **Easier, quicker shifts—10 forward speeds with short 28% steps between ratios**
- **One shift lever that controls all 10 forward speeds**
- **No gear splitting—10 selective gear ratios are evenly and progressively spaced**
- **Higher average road speeds—engines operate in peak hp range with greater fuel economy**
- **Less driver fatigue—because there's ⅓ less shifting**
- **Range shifts pre-selected—automatic and synchronized**
- **Compact space-and-weight-saving economies—the most compact 10-speed transmission available**
- **Transmission weight under the cab—permitting more cargo to be carried on the payload axles.**

Give your drivers *complete control* of every driving condition. Check with your local truck dealer for the right Fuller Transmissions to meet your trucking requirements.

Fuller TRANSMISSIONS®

FULLER MANUFACTURING COMPANY (Transmission Division), KALAMAZOO, MICHIGAN

Unit Drop Forge Div., Milwaukee 1, Wis. • Shuler Axle Co., Louisville, Ky. (Subsidiary) • Sales & Service, All Products, West. Dist. Branch, Oakland 6, Cal. and Southwest Dist. Office, Tulsa 3, Okla.

The Engineer's Field Report

CASE HISTORY
PRODUCT RPM Chassis Grease T-B
FIRM Southern California Freight Lines Los Angeles, Calif.

Not one chassis part replaced during 301,019 miles interurban freight hauling





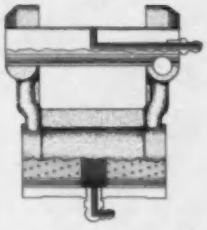
TWO ROUND TRIPS A DAY from Los Angeles to San Diego ran up 301,019 miles in 27 months on this 200-h.p. c.o.e. White Freightliner. Loads averaged 20 tons per trip. Not once in this time did Southern California Freight Lines have to pull the tractor out of service to replace bushings, shackles, spindles or any chassis component. Shop Foreman, Lloyd Mullenaux, says this is typical of the service RPM Chassis Grease T-B gives them on all 450 power units the company operates in its freight hauling service. Fifth wheels on all tractors get protective coats of this wear-reducing grease (above right) to minimize galling of large metal surfaces. RPM Chassis Grease T-B does not squeeze out under heaviest loads.

RPM

TRADEMARK "RPM" REG. U. S. PAT. OFF.

FOR MORE INFORMATION about this or other petroleum products of any kind, or the name of your nearest distributor, write or call any of the companies listed below.

Why RPM Chassis Grease T-B prevents wear

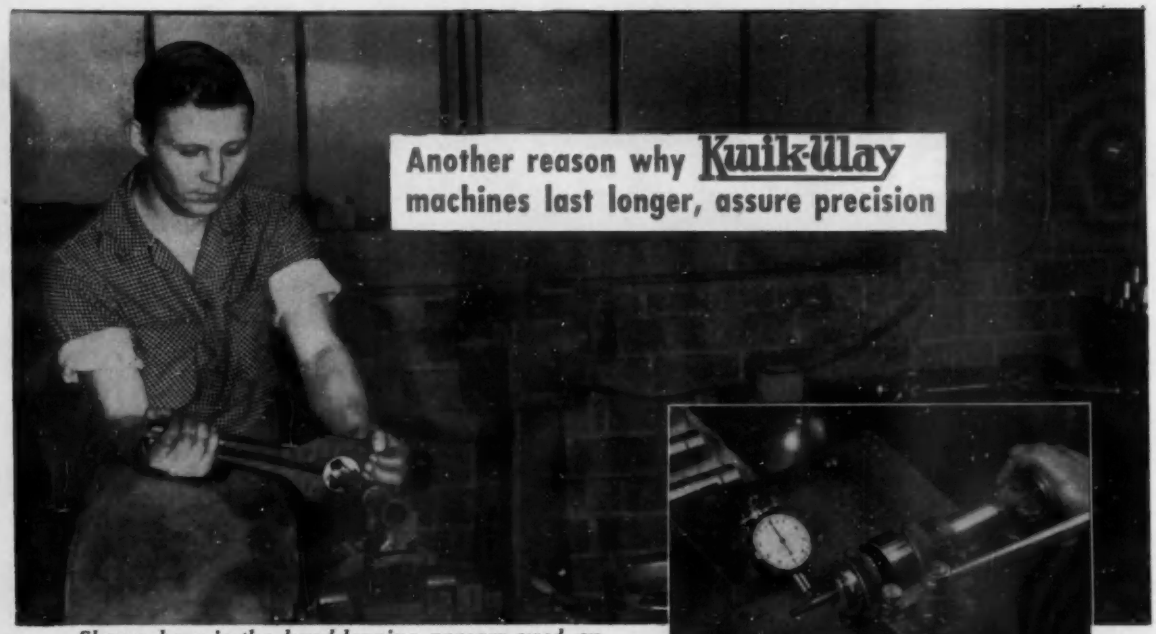


Metallic anti-wear agent and heavy oil stocks increase film strength.

Stringiness agent provides high adhesion and cohesion qualities; will not squeeze out of bearings under pressure.

Seals out grit and water—excellent pumpability in cold weather assures constant lubrication.

STANDARD OIL COMPANY OF CALIFORNIA, San Francisco 20 • STANDARD OIL COMPANY OF TEXAS, El Paso
THE CALIFORNIA OIL COMPANY, Perth Amboy, New Jersey • THE CALIFORNIA COMPANY, Denver 1, Colorado



Shown here is the hand-lapping process used on every chuck shaft and chuck collar.

After the hand-lapping phase, the completed chuck assembly is checked with a series of hardened and ground arbors to insure accurate, precise operation throughout the entire range.

No wavering, no vibration

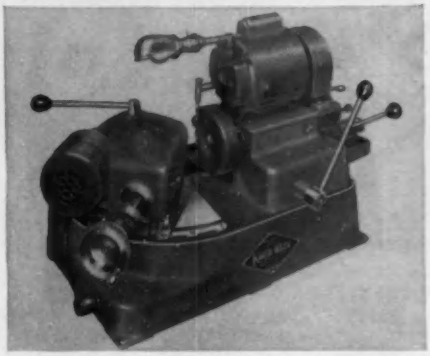
That's because Kwik-Way chuck shafts and collars are hand-lapped for precision

The chuck collar and chuck shaft of Kwik-Way Super-Matic Valve Facing Machines are hand-lapped for perfect fit, so that the valve rotates completely free of waver or vibration.

The sockets in the shaft which hold the special centering balls that grip the valve stem are hand-lapped, too. This careful handwork by skilled craftsmen makes absolutely certain that the facing is smooth, pitless and unmarked.

Inside the chuck, the least worn portion of the valve stem is gripped by two sets of three balls. This means that each valve face is finished so that it is concentric to the center line of that part of the stem that operates in the valve guide.

Hand-lapping of the chuck collars, shaft and ball sockets, by skilled craftsmen, is another reason why Kwik-Way Super-Matic Valve Facing Machines are unequalled for precision.



Dove-tailed, hand scraped ways with adjusting gibs • Fully Automatic Micro-Switch Control • Positive, high volume coolant supply • Kwik-Way lever operated chuck • Pre-loaded, sealed grinder spindle bearings.

Write today for illustrated brochure

CEDAR RAPIDS ENGINEERING CO.
912 17th St., N.E., Cedar Rapids, Iowa

Precision — Speed — Long Life

Kwik-Way

Engine Reconditioning Equipment

B.F.Goodrich



Traction Express tires roll 160,000 miles before recaps for Tennessee trucker

WILSON TRUCK COMPANY, INC. of Nashville operates 200 tractors, 350 trailers and 60 pick-up trucks that haul general freight throughout the southeast and middle west. In an effort to obtain maximum highway mileage, the company tested various tires, including the B. F. Goodrich Traction Express.

On the basis of these test results they selected Traction Express tires, report they get as many as 160,000 miles *before* recaps from them! The Traction Express tread is up to 46% thicker than that of a regular tire. Curved cleats grip the pavement, give greater traction in forward or reverse.

And under the thick tread is the B. F. Goodrich *all-nylon* cord body. Nylon withstands double the impact of ordinary cord materials, resists heat blowouts and flex breaks. No wonder the *all-nylon* Traction Express body outwears even the extra-thick tread, *can still be recapped over and over!*

If you want maximum highway mileage at minimum cost per mile, see the Traction Express at your B. F. Goodrich retailer's (available in either *all-nylon* or rayon construction). Or write *The B.F.Goodrich Co., Tire & Equipment Div., Akron 18, Ohio.*



CASCADE TRANSPORT operates out of Wenatchee, Wash., hauling fuel in the northcentral part of the state. Trucks roll 24 hours a day, 7 days a week. The company reports *all-nylon*



Traction Express tires roll 155,000 miles before recaps, then with 2 to 4 'caps another 100,000 miles. No wonder truckers call this BFG tire "the 100,000-mile tire".

Specify B. F. Goodrich tires when ordering new trucks or trailers

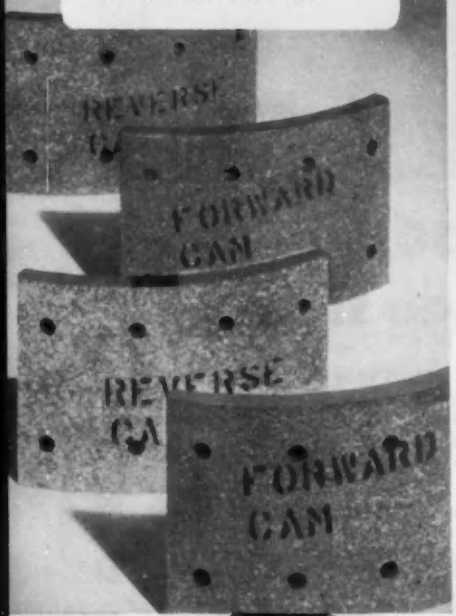
RESEARCH KEEPS B.F.Goodrich FIRST IN RUBBER

Your B. F. Goodrich retailer is listed under Tires in the Yellow Pages of your phone book

SEE, FEEL and SAVE the difference with Grey-Rock Balanced Blocks

SEE

See the difference in the many friction materials Grey-Rock uses. For heavy jobs—Balanced Blocks in combinations of molded materials. For light trucks—Balanced Trucksets, in distinctive woven and molded combinations, or in all-woven or all-molded sets. All engineered for each make and model.



FEEL

Feel the difference in faster, smoother brake action—minimum fade—quicker water recovery—quiet action—and good pedal feel that assures driver peace of mind. You get all the superior braking features you want and need with Grey-Rock.



SAVE

You *save* because Grey-Rock Balanced Brake Blocks give more miles between relines—longer drum life—better tire wear—less labor and downtime—all adding up to lower cost per mile. Ask your Grey-Rock jobber for the facts and figures now.





Only **Grey-Rock** *makes*

BALANCED BRAKSET LININGS

BALANCED BRAKSETS • TRUCKSETS • BRAKE BLOCKS

VEE-LOK® CLUTCH FACINGS

GREY-ROCK DIVISION of Raybestos-Manhattan, Inc., Manheim, Pa.

RM

RAYBESTOS-MANHATTAN, INC., Brake Linings • Brake Blocks • Clutch Facings • Industrial Rubber, Engineered Plastic, and Sintered Metal Products • Rubber Covered Equipment • Asbestos Textiles • Laundry Pads and Covers • Packings • Abrasive and Diamond Wheels • Bowling Balls

NEWAY Trailer tandem suspension

no LUBRICATION *At any time.*

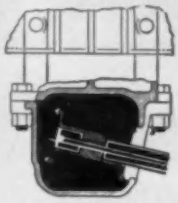
ALL RUBBER MOUNTED wearing points mounted in rubber for thousands of miles of trouble free operation.



Model T-636-1 Weight 757 lbs.

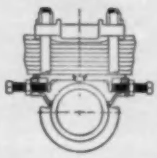
- **THE LIGHTEST WEIGHT** Tandem Suspension to be nationally marketed.
- **CONTROLLED SPRING DEFLECTION** only 1-5/8" from light to loaded designed with the High Cube Trailer in mind.

Rubber Mounted Spring End



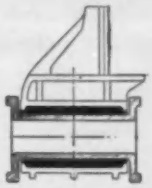
Spring ends sealed in rubber under compression allowing controlled movement for riding ease.

Positive Axle Alignment



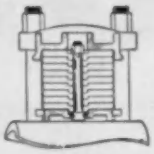
Simplified alignment procedure allows 1½" of adjustment for each axle.

Rubber Bushed Trunnion



Neway's proven, patented rubber bushing restricts flip-flop under an empty trailer and allows controlled movement under load.

Interlocked Spring Leaves



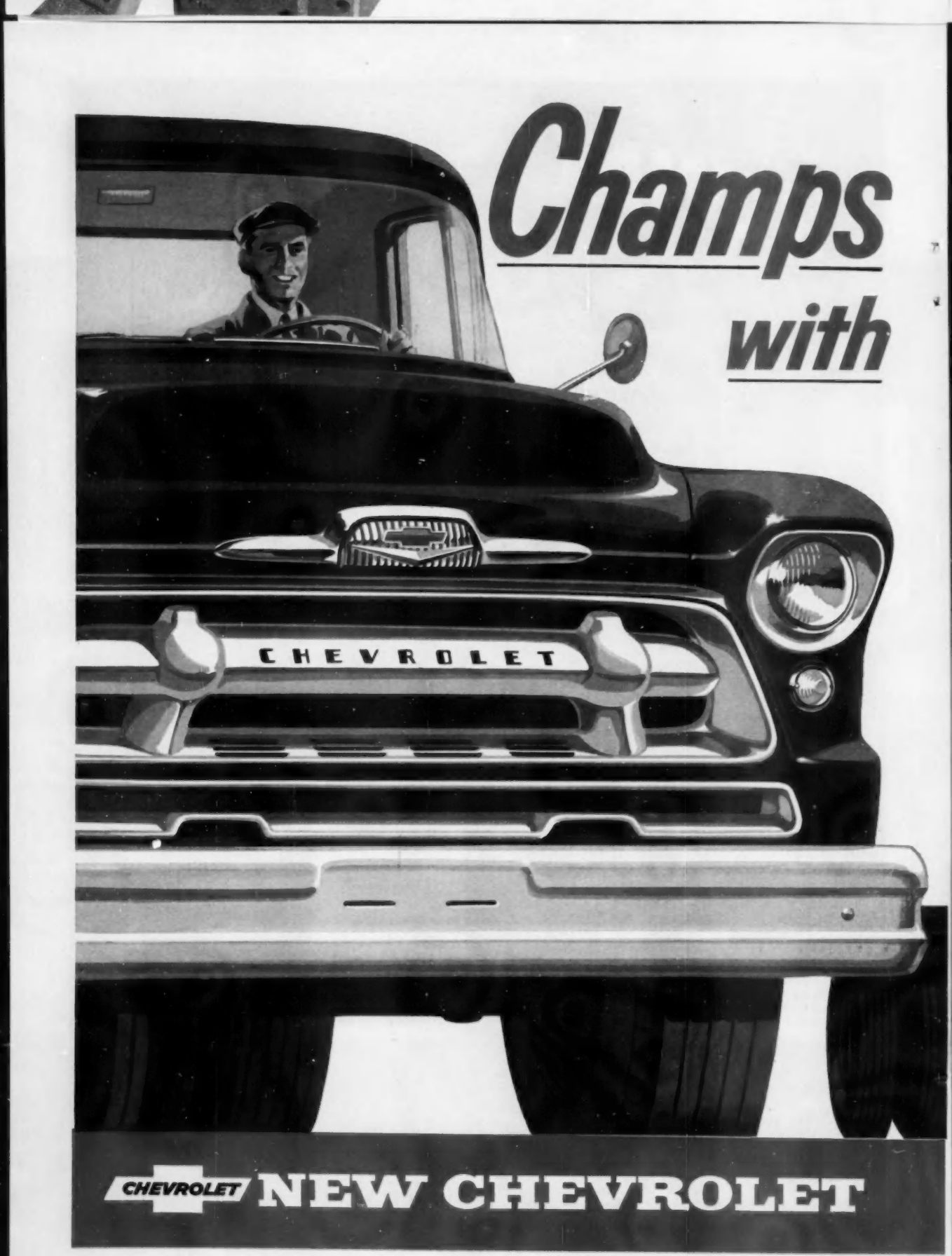
4" wide ⅜" thick wide springs provide improved lateral stability and reduce unnecessary weight in spring stack.

Write for bulletin No. T-600, and the name of your nearest distributor.

NEWAY Equipment Company

MUSKEGON, MICHIGAN, U.S.A.

DESIGNERS • ENGINEERS • MANUFACTURERS OF SUSPENSIONS FOR TRAILERS • TRUCKS • SPECIALIZED EQUIPMENT


Champs
with
CHEVROLET
CHEVROLET
NEW CHEVROLET

These new Task-Force jobs pack the biggest power punch in Chevrolet truck history with the most modern engines in the industry! They're the new champs of every weight class with a V8 for every model and an automatic drive for every series!

a new power punch!

HIGH-POWERED V8's throughout the line!

They're standard in all L.C.F.'s and new heavyweight haulers (extra cost in other models). The big new 322-cu.-in. Loadmaster provides the short-stroke power punch in top-tonnage L.C.F.'s and in other models rated up to 32,000 lbs. G.V.W., 50,000 lbs. G.C.W.! Famous Task-Force sixes—more powerful than ever—keep rolling with traditional economy!

WORK-SAVING automatic drives in every series!

There's revolutionary new Powermatic with 6 fully automatic forward speeds, available for most middleweights and heavies! Hydra-Matic for all truck models rated up through 1½ tons! Both are extra-cost options. See your Chevrolet dealer for details on the right Task-Force model for your job!... Chevrolet Division of General Motors, Detroit 2, Michigan.

Anything less is an old-fashioned truck!



TASK·FORCE TRUCKS

IT'S NEW... IT'S LIGHT IN WEIGHT ...IT'S RUGGED CAST STEEL!

the Simplex 5th wheel



AND IT'S BUILT FOR AN EXTRA MARGIN OF SAFETY

Looking for a way to get a "bonus" on 5th wheel performance? You *can*—when you specify the new Simplex 5th Wheel. Here's a wheel that carries the heaviest loads permitted on highways... carries them safely, smoothly... at lower costs per mile!

And, note the many features of this new wheel ... most not available on other wheels *regardless* of weight! Then consider the fact that Simplex Wheels have been subjected to thousands of miles of road testing... and have earned the high praise of users.

If *you* are looking for new ways to maintain high safety margins—and yet reduce dead weight on your tractors—find out more about the new Simplex Wheel.

Write today to
Simplex 5th Wheel,
Hohman Ave. and Hoffman St.,
Hammond, Indiana

A FEW OF THE MANY FEATURES OF THE NEW SIMPLEX WHEEL

Rugged cast-steel plate—webbed and reinforced for maximum strength.

Cushioned rocker arm—your payload rides on rubber.

You *know* the wheel is locked—by a quick glance at operating handle.

Forged steel jaw—greater bearing area, longer king-pin life.

All locking parts are positively interlocked —for maximum safety.

Easy to unlock—*from the side*—with just one hand!

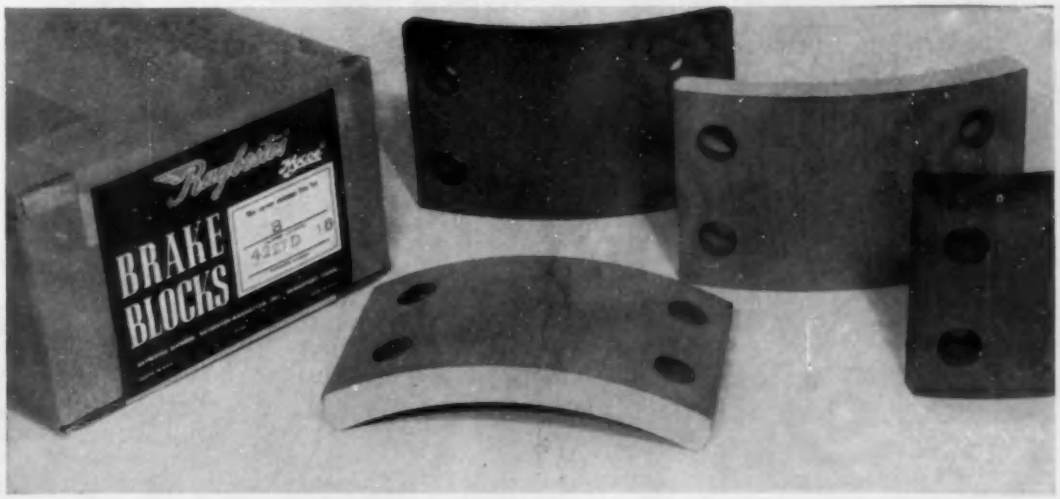
See all of these features illustrated—and many more. Write for free copy of new Catalog that completely describes the construction and operation of the Simplex 5th Wheel!

Simplex 5th wheels

Raybestos®

COMBINATIONS

will give you lower cost-per-mile



Yes, you will have lower operating costs because of the quality, uniformity and performance of these famous Raybestos products • **Brake Blocks** • **PGT Sets** • **Clutch Facings** • **V Drive Plates** • **Fan Belts** • **Radiator Hose.** To learn more about the savings Raybestos can give you, ask your Jobber Salesman about the unique Raybestos Fleet Engineering Plan.

Raybestos®

AMERICA'S BIGGEST SELLING BRAKE LINING

RAYBESTOS DIVISION of Raybestos-Manhattan, Inc., BRIDGEPORT, CONN.

RAYBESTOS-MANHATTAN, INC., Brake Linings • Brake Blocks • Clutch Facings • Fan Belts • Radiator Hose • Industrial Rubber, Engineered Plastic, and Sintered Metal Products • Rubber Covered Equipment • Asbestos Textiles • Laundry Pads and Covers • Packings • Abrasive and Diamond Wheels • Bowling Balls

WAUKESHA

THE PAYLOAD POWER PLANT—

GASOLINE

DIESEL

LP GAS

50th ANNIVERSARY Waukesha MOTOR 1906-1956

Dual springs, long guides. Pressure-oiled rockers. Stellite-faced valves, seats.

Clean-burning combustion chamber removes from outside. Upper half water cooled; lower half air insulated to concentrate heat at throat.

Four non-stick "keystone" rings, top ring chrome-plated. Two flat oil rings.

Full length water jackets.

Renewable cylinder sleeves.

Built-in oil cooler increases oil and engine life.

American Bosch injection pump and single-hole pintle nozzles.

Rifle-drilled rods. Oil jets cool pistons.

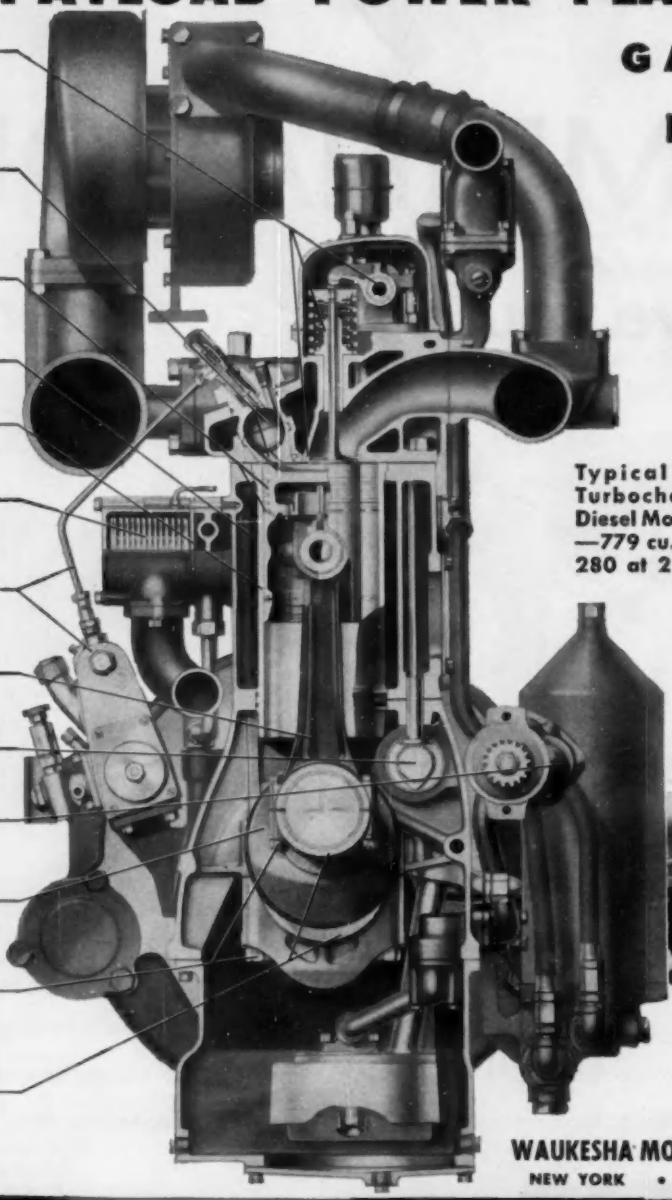
Hardened camshaft, single forging.

High-capacity outside oil pump.

Drop-forged hardened crankshaft. High-speed counterweights not shown.

Alloy-steel heat-treated rod and main bearing bolts.

Hardened main and rod journals. Steel-back, triple-element precision bearings, pressure oiled.



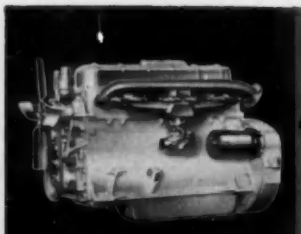
Typical Waukesha Turbocharged Truck Diesel Model 148-DKBS —779 cu. in. Max. hp 280 at 2100 rpm.



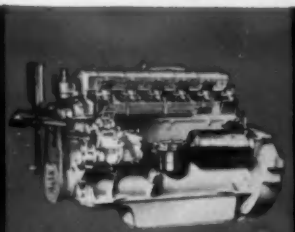
299

WAUKESHA MOTOR CO., Waukesha, Wis.

NEW YORK • TULSA • LOS ANGELES



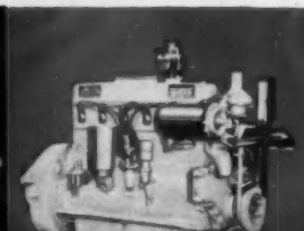
265 cu. in. Gasoline or LPG



265 cu. in. Diesel



302 cu. in. Diesel



320 cu. in. Gasoline or LPG

ENGINES

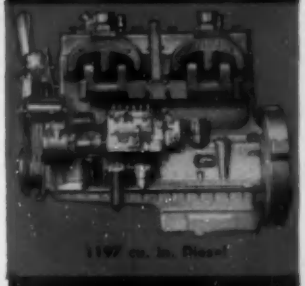
MODEL	Cyl.	*Features	Bore and Stroke	Displ. Cu. In.	Max. Torque @ RPM	Max. HP	RPM
TURBO-SUPERCHARGED DIESELS							
135-DKBS	6	ACTV	4¼x5	426	400-1800	185	2800
148-DKBS	6	ACTV	5¼x6	779	706-1800	280	2100
WAKDBS	6	ACTV	6¼x6½	1197	1062-1600	352	1800
NORMAL DIESELS							
185-DLC	6	A	3½x3¾	216	152-1200	60	2400
190-DLCA	6	AC	3¾x4	265	191-1400	85	2800
195-DLCA	6	AC	4 x4	302	221-1800	98	2800
135-DKB	6	ACV	4¼x5	426	328-1600	147	2800
148-DKB	6	ACV	5¼x6	779	584-1000	200	2100
WAKDB	6	ACV	6¼x6½	1197	845-1000	258	1800
GASOLINE							
185-GLB	6	A	3½x3¾	216	176-1400	67	2400
190-GLB	6	A	3¾x4	265	220-1200	77	2400
195-GKA	6	ACV	4⅛x4	320	243-1600	122	3000†
MZA	6	A	4¼x4¾	404	289-1000	128	2800†
135-GKB	6	ACV	4¼x5	426	337-1200	147	2800†
135-GZB	6	ACV	4⅜x5	451	354-1200	153	2800†
140-GKB	6	ACV	4½x5½	525	425-1000	177	2600†
140-GZB	6	ACV	4⅝x5½	554	448-1100	188	2600†
145-GKB	6	ACV	5¼x6	779	595-1000	240	2400†
145-GZB	6	ACV	5⅜x6	817	630-1100	250	2400†
WAKB	6	ACV	6¼x6½	1197	1000-1000	280	1800

***FEATURES:** A—Aluminum Alloy Pistons; C—Counterbalanced Crankshaft; T—Turbo-Supercharged; V—Vibration Dampner.

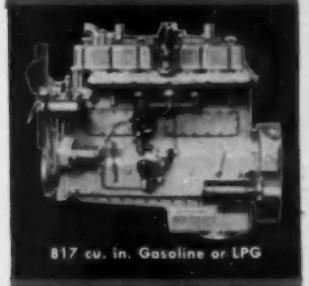
†These engines rated at higher hp and rpm for fire engine service. *Send for Bulletin 1079 for LPG ratings and complete listing of engine hp and speed ratings.*



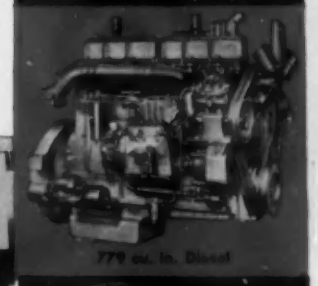
1197 cu. in. Supercharged Diesel



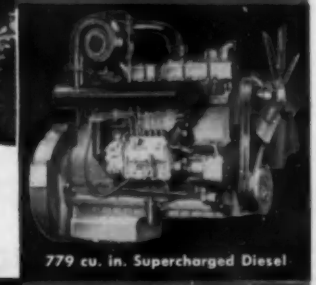
1197 cu. in. Diesel



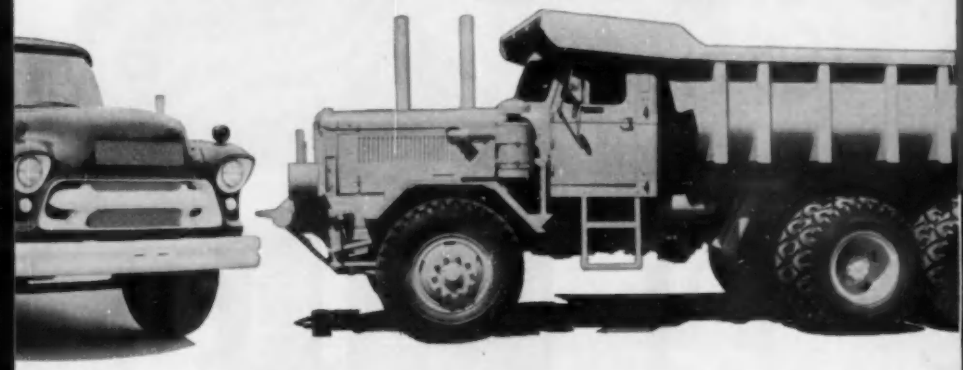
817 cu. in. Gasoline or LPG



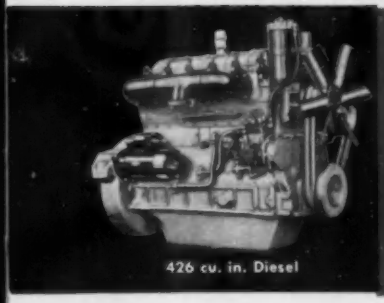
779 cu. in. Diesel



779 cu. in. Supercharged Diesel



OVER THE ROAD OR OFF THE HIGHWAY



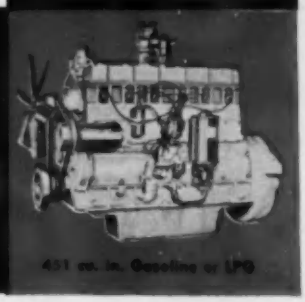
426 cu. in. Diesel



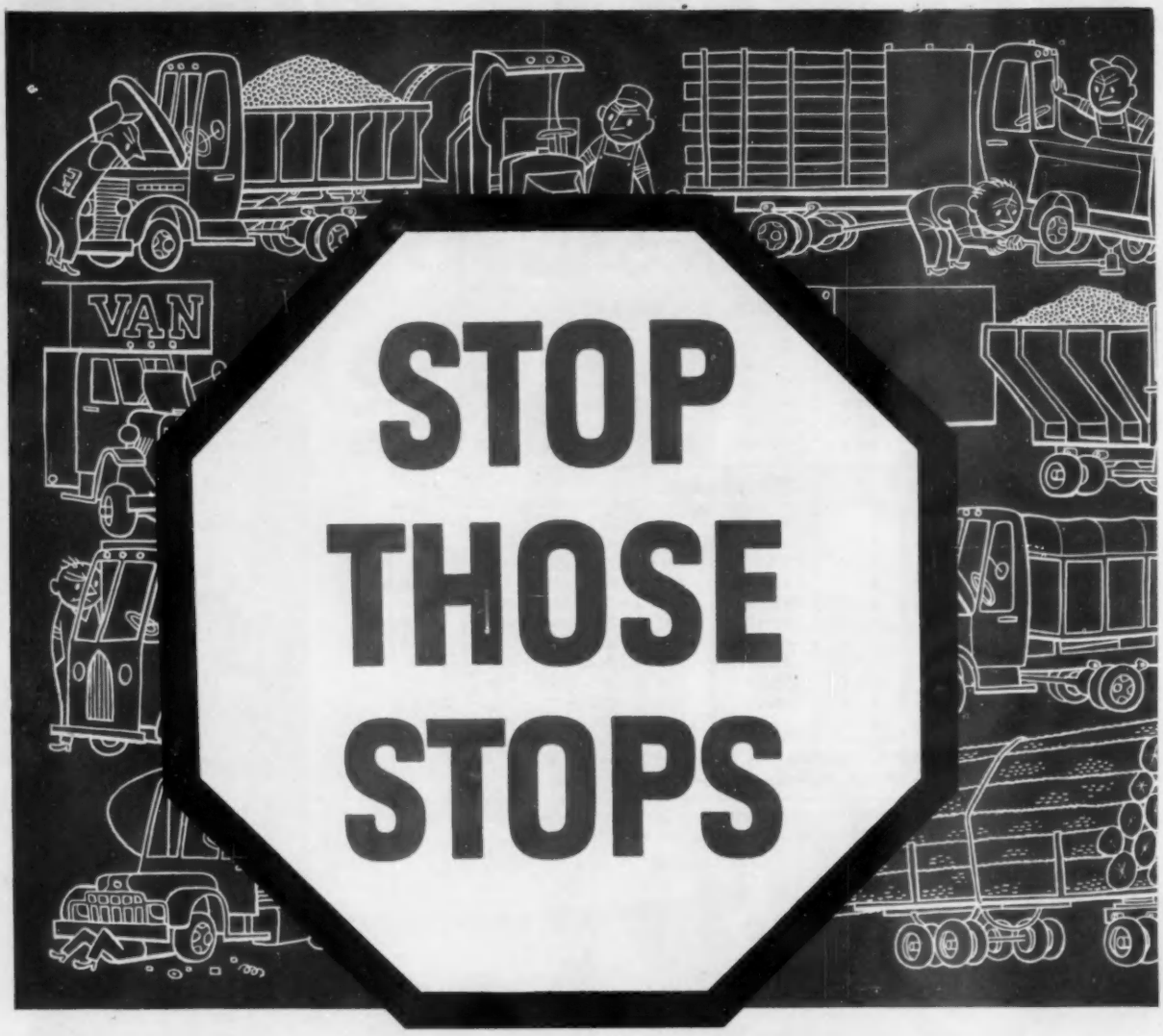
426 cu. in. Supercharged Diesel



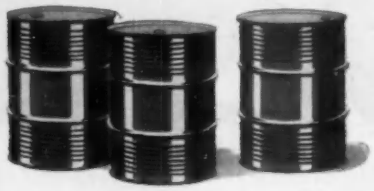
554 cu. in. Gasoline or LPG



451 cu. in. Gasoline or LPG



Use these proved Socony Mobil aids to help keep your fleet going!



FAMOUS QUALITY PRODUCTS –

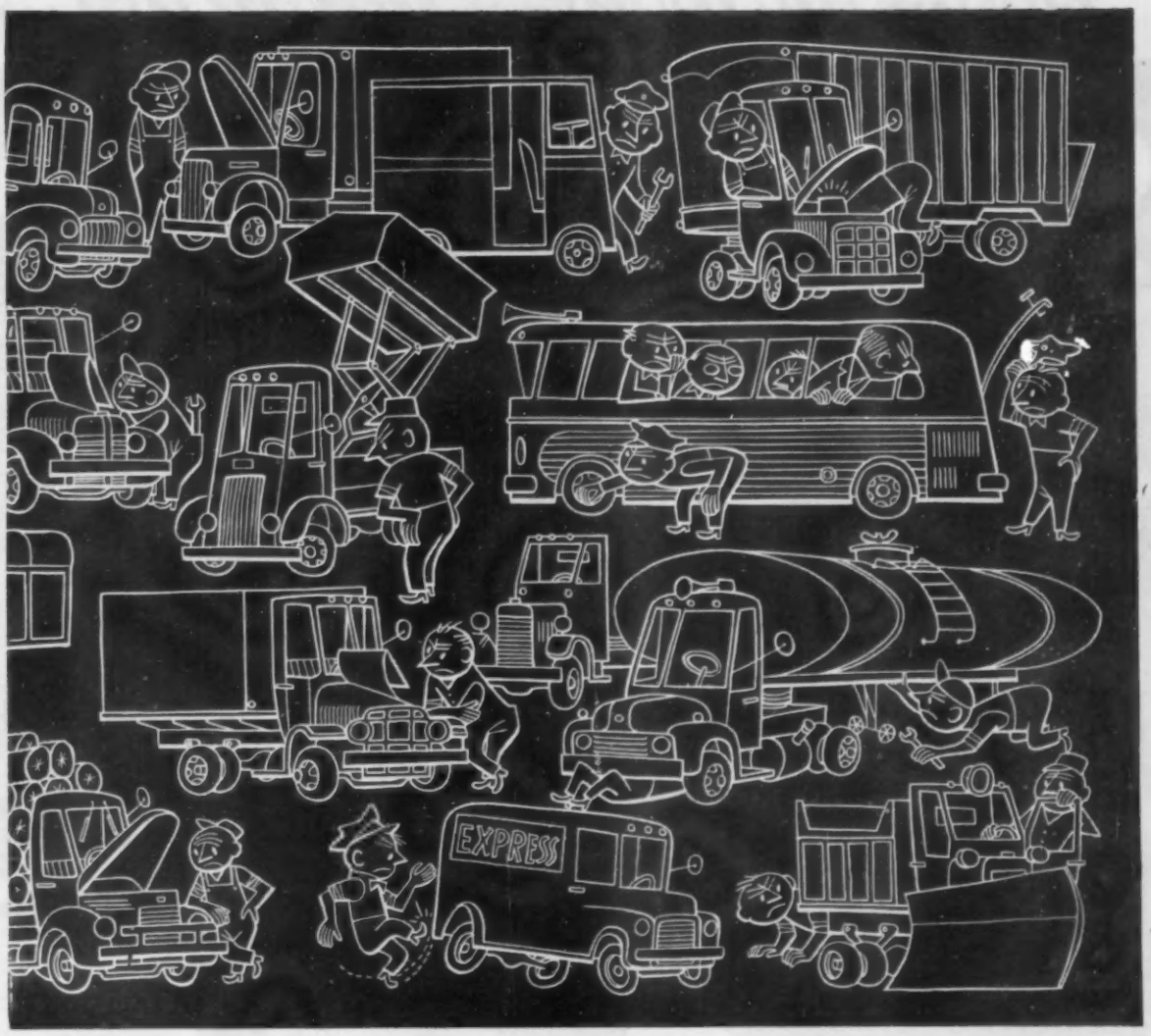
Delvac Oils – for all gasoline and automotive Diesel engines.

Mobilube GX – multi-purpose gear lubricant for all enclosed gears – manually operated transmissions, transfer cases, final drives.

Mobilgrease – types and grades for correct lubrication of all chassis parts, engine accessories.

CORRECT LUBRICATION

THE FLYING RED HORSE COMPANIES: SOCONY MOBIL OIL CO., INC.,



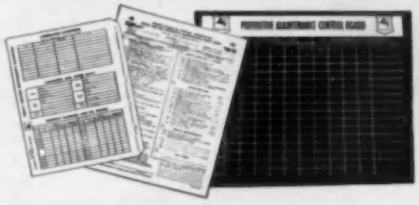
2

LUBRICATION ENGINEERING SERVICE—

We will analyze your fleet conditions, advise on lubrication schedules and inspection periods. We also provide the services of expert lubrication engineers when necessary, give you progress reports of benefits achieved. Our research laboratories – our 89 years' experience – are all at your service!



3



SIMPLIFIED P.M. SYSTEM—

Just three things to work with – record folder, work sheet, control blackboard. We supply folders, work sheets – show you how to use them – help you set up entire system. It's simple, foolproof, profitable – helps reduce wear, repairs, breakdowns . . . cut maintenance costs to the bone!

FOR FLEET OPERATORS

MAGNOLIA PETROLEUM COMPANY, GENERAL PETROLEUM CORPORATION

Here's the Modern way to get...

GREATER PAYLOAD



ONLY 90 INCHES—from front of bumper to back of cab—the *new* dimension that opens new earning power opportunities no matter how restrictive the highway laws.

It's an entirely new concept in tractor design that achieves new payload dimensions . . . introduces many new mechanical advances.

Incomparable, where both front axle loading and the "L" dimension are important factors in payload. The White 9000 puts extra profit into "high-cube" service.

See how it fits into your operations.

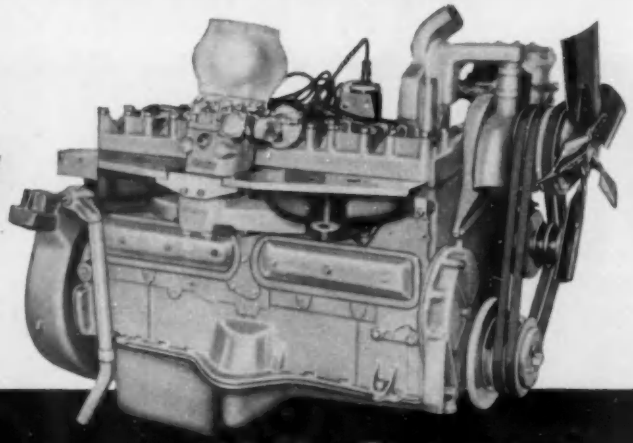
THE WHITE

WHITE states—where heavy front axle loading is not a factor. GRAY states—where heavy front axle loading is important and axle spacing is not a factor. BLACK states—where both front axle loading and axle spacing are important.



ONLY White





. . . MORE POWER

MORE earning power because of these husky White Mustang Engines . . . in the White 9000. It's today's greatest power plant for high-payloads, high-mileage, tight-schedule operations.

It is no longer necessary to go to a heavier chassis in order to get an engine of suitable capacity or units for your operating needs. All four Mustang Engines are available in the White 9000.

THE WHITE 9000 is also available with diesel power—with the famous Cummins JT-6B Turbo-Diesel with the revolutionary PT fuel system—175 horsepower.

THE NEW WHITE MUSTANG

Another major advance in White Quality, engineered for today's highway power requirements. More power per pound of engine weight.

Four Mustang Engines—

145 HP	200 HP
160 HP	215 HP

ENTIRELY NEW COOLING SYSTEM—Larger capacity water pump for uniform valve cooling, uniform operating temperatures.

NEW CYLINDER HEAD—Depth almost double that of ordinary design.

GREATER CAPACITY INDUCTION SYSTEM—New four-barrel carburetor for maximum power and fuel economy.

NEW OIL PUMP—50% greater capacity.

PILLAR BLOCK CONSTRUCTION—Cylinder blocks constructed with solid pillars of metal, free of cylinder walls to eliminate distortion and reduce wear.

PLUS many other Mustang Engine Refinements that Mean Efficiency and Economy.

9000

THE WHITE MOTOR COMPANY

Cleveland 1, Ohio

The White Motor Company of Canada Limited—Toronto

FOR MORE THAN 55 YEARS THE GREATEST NAME IN TRUCKS

White

has the COMPLETE LINE Answer for Maximum Payload

WITH the addition of the new WHITE 9000, White now has complete coverage of state highway laws with a line of tractors that helps the operator in his need for greater payload.

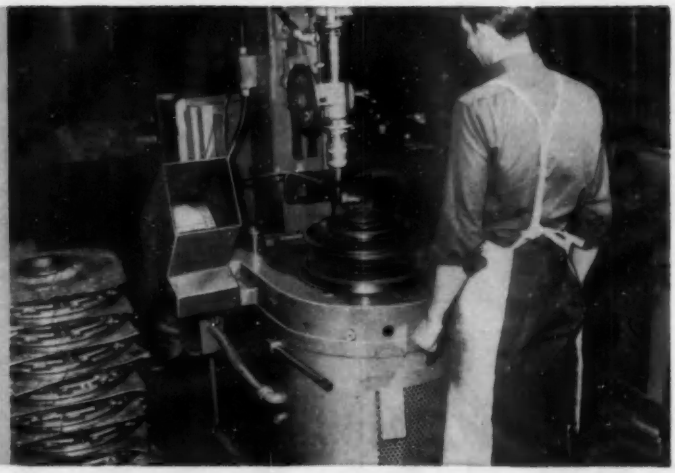
Ask your White representative for Facts . . . **NOW!**



Only an original equipment manufacturer could be equipped to rebuild clutches on a production line basis. Each Lipe Factory Exchange clutch is carefully spin-balanced on one of a battery of machines at left before leaving factory . . . insuring vibration-free performance.

Who Else but *Lipe*

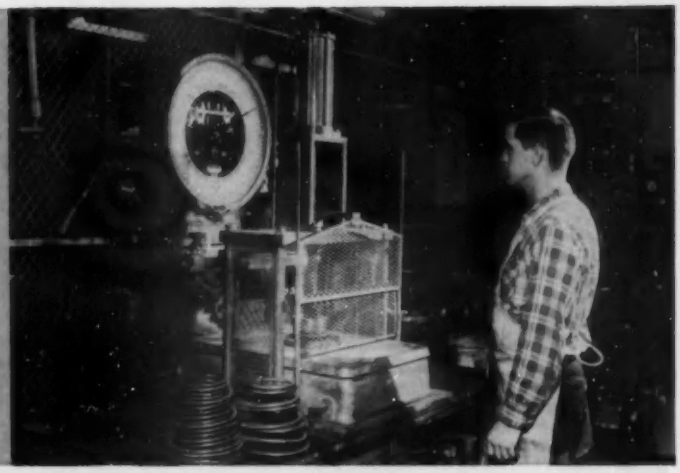
Electronic inspection of whirling assembled clutch, right, detects presence of minute vibrations due to imbalance. Vibrations are amplified and recorded on oscilloscope at left of spindle. This machine incorporates the latest scientific advances in dynamic balancing equipment.





Lipe-built fixture at left simulates actual vehicle installation, checks assembled exchange clutch for plate separation, release travel, overall clutch height, and wear travel potential. Each is recorded by serial number for permanent inspection record.

Specially built by Lipe, spring-weighing machine at right double-checks clutch springs for (1) compression weight (resistance); and (2) coil interference, to detect any existing rub between coils under compression.



is equipped for PRECISION rebuilding of Lipe Clutches ?

A Lipe Factory Exchange Unit is one which is rebuilt by the original equipment manufacturer. The replacement parts used *are* original equipment, supplied by the same parts bins from which new Lipe clutches are assembled.

They, and the used parts re-assembled with them, all meet the same precise tolerances—undergo the same rigid specification tests—as a new clutch.

That's why we place Lipe's *Seal of Protection* on each Factory Exchange Unit shipped to you. We're sure of it, and we want you to be sure, too—with a *guarantee* of genuine Lipe parts and craftsmanship. A glance at the pictures on these pages will show you why . . .

Lipe's Factory Exchange Plan Makes Dollars and Sense

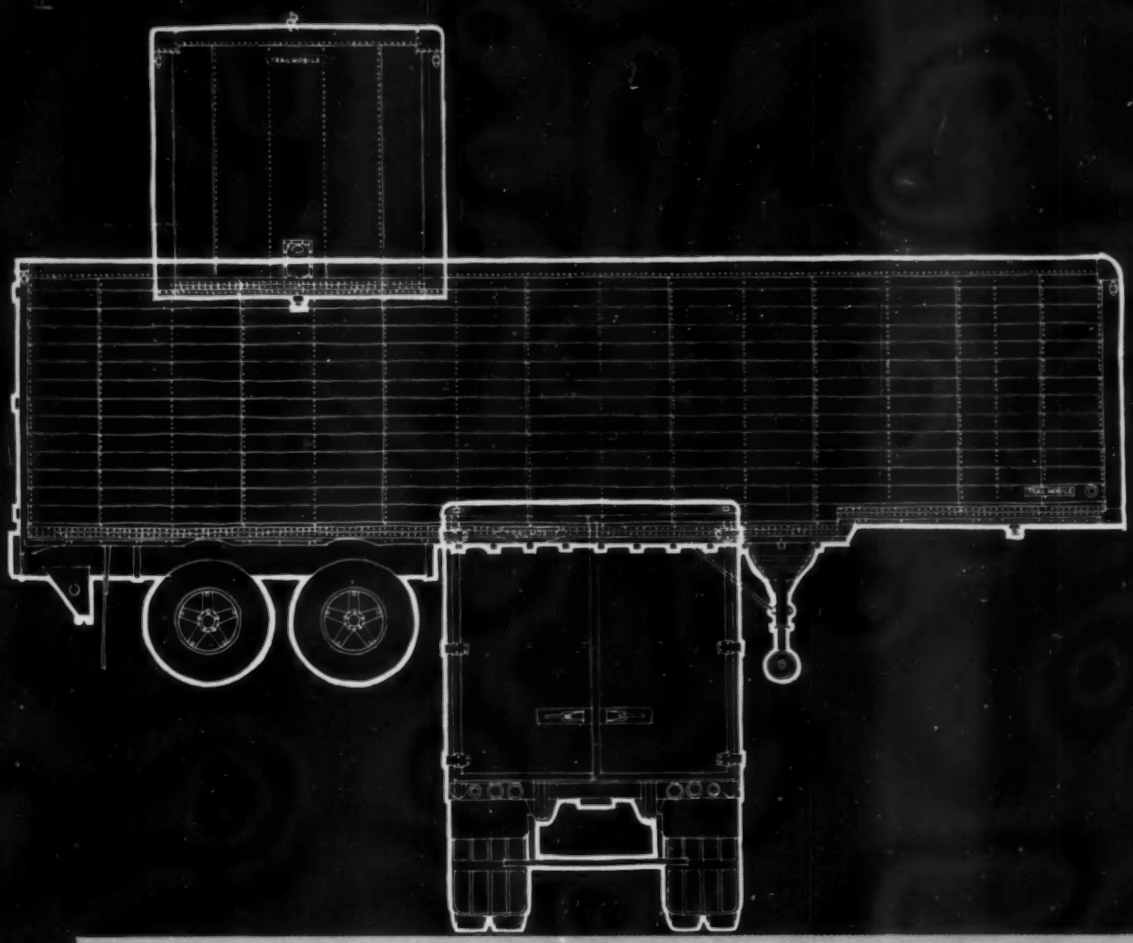
A single installation of a Lipe Factory Exchange clutch will point up the substantial savings to be made under the Lipe Plan. Conservative estimates show that you can *reduce your clutch repair bills up to 25%!*

● **See Your Lipe Jobber** for full information on the Lipe Factory Exchange Plan. Consult the yellow pages of your phone book for the name of your nearest Lipe jobber.

Lipe-ROLLWAY CORPORATION
Manufacturers of Automotive Clutches and Machine Tools
Syracuse 1, N. Y.

"Go" or "No-Go"? Inspector at right checks functional dimensions of pressure plate lugs. Such checks, throughout each Factory Exchange Unit, are made to exactly same limitations as a brand new Lipe clutch.



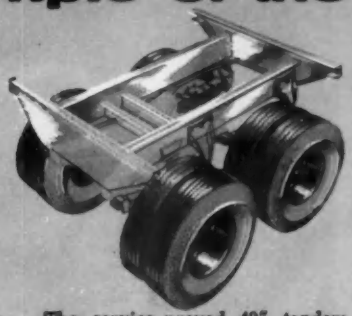


Here's another example of the

Consideration of load weight and load distribution will always make one type of running gear more desirable than any other. And with CID you get a choice between four types. Moreover, after you have specified the one you want, you can go right on selecting underframes, floors, side panels, linings, fronts, corner radii and nose caps until you have assembled the ideal trailer for your operation.



The Trailmobile single axle suspension has rubber-bushed radius rods for positive alignment and 20,000 pound tubular axle for equal strength in all directions.



The service-proved 49" tandem equalizes load without brake chatter. This means lower tire costs and brake wear—safer operation.

ONLY CUSTOM DESIGN

gives you practical, profitable volume

...and only Trailmobile's CID* gives you custom design

We can think of two things you haul that will never be profitable. One is air and the other is excess trailer. Which is simply another way of saying that volume alone isn't always the answer to profitable hauls.

It is good business to let the nature of your loads determine the nature of your cube—for useless cargo space simply increases weight without increasing revenue.

That's why thousands of cost-conscious operators are turning to Trailmobile's CID (Customer Individualized Design).

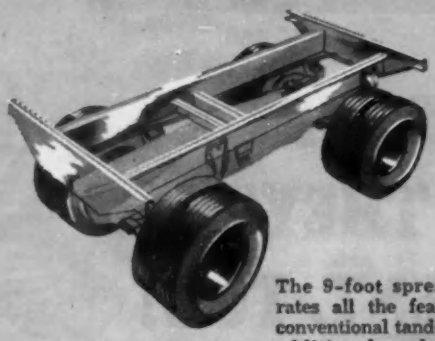
CID lets you custom design your trailers to fit *your* exact hauling needs. You simply select from a wide range of standardized interchangeable components and we assemble them into the ideal trailer for your operation. CID gives *you* the choice—so you never need to take less than you want or more than you need.

So don't be tempted by offers of immediate delivery on *mass-produced models.* Get what *you* need! Get CID! TR-423

TRAILMOBILE INC.

Cincinnati 9, Ohio • Berkeley 10, California

choice you get with CID



The 9-foot spread incorporates all the features of the conventional tandem and gives additional payload flexibility where state laws permit.



The shiftable tandem enables operators to eliminate reloading because of improper weight distribution. It is adjustable from 49 to 115" at 3" intervals.

*Customer Individualized Design

They roll so true

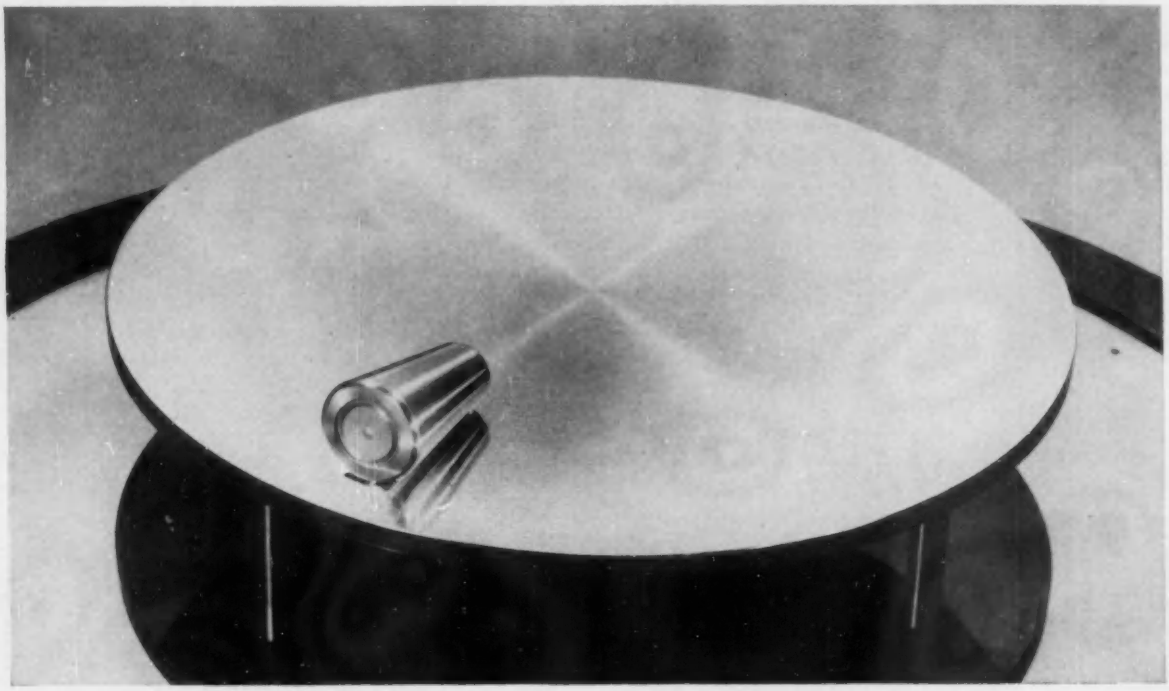
(Another reason why TIMKEN® bearings are first choice with truck manufacturers)

The Timken® bearing tapered roller, on the oscillating table pictured here, keeps rolling in a perfect circle proving the accuracy of its taper.

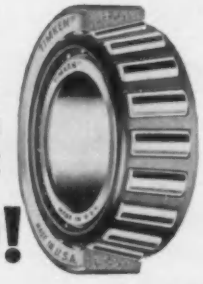
Timken tapered roller bearings are designed by geometrical law to have true rolling motion. And they're precision manufactured to almost microscopic limits to live up to their design. It's a big reason why truck manufacturers make Timken bearings their number one choice for original equipment.

Only Timken bearings give you all these advantages: 1) advanced design, 2) precision manufacture, 3) rigidly controlled quality, 4) special analysis Timken steels (we're America's only bearing manufacturer that makes its own steel).

Follow the lead of the manufacturers. For the best possible tapered roller bearing replacement, make certain you get *Timken* bearings. Look for the trade-mark "Timken" on every bearing. And write us for the free booklet, "Timken Tapered Roller Bearings—Their Care and Maintenance". Write Dept. JCC-4, The Timken Roller Bearing Company, Canton 6, Ohio. Canadian plant: St. Thomas, Ontario. Cable address: "TIMROSCO".



SINCE THEY'RE BEST WHEN THE TRUCK IS NEW, THEY'RE BEST FOR REPLACEMENT, TOO!



TIMKEN
TRADE-MARK REG. U. S. PAT. OFF.
TAPERED ROLLER BEARINGS

NOT JUST A BALL NOT JUST A ROLLER THE TIMKEN TAPERED ROLLER BEARING TAKES RADIAL AND THRUST—LOADS OR ANY COMBINATION

OSHKOSH 4-WHEEL DRIVE "50-50" CONCRETE CARRIER *Really Performs!*



Power, 4-wheel traction, stamina — plus easy maneuverability — make the Oshkosh 50-50 your best buy in a ready-mix concrete carrier.



Oshkosh 50-50 hub deep in soft sand at the "Country Club Estates" — a new subdivision adjacent to City of Coronado. Tough going for most rigs — easy for Oshkosh!



It's hard to believe — but the 4-wheel drive Oshkosh 50-50, with 18,000 lb. payload on each axle, pulls through soft sand quickly and easily . . . spots loads anywhere!

SAYS

SAN DIEGO TRANSIT-MIXED CONCRETE CO.
SAN DIEGO 3, CALIFORNIA

Gentlemen:

Your Oshkosh rig really performed. Our others needed planking to do anything, even on relatively firm sand. The Oshkosh 50-50 needed no planking. While it sank down in the soft sand, it never stopped even once.

JOB: "Country Club Estates", new subdivision, City of Coronado, adjacent to North Island, deep sand everywhere.

GENERAL CONTRACTOR: BOSWELL CONSTRUCTION CO., SAN DIEGO
CONCRETE CONTRACTOR: HARBOR CONSTRUCTION CO., SAN DIEGO. KEN STOCKWELL, SUPT.
CONCRETE: SAN DIEGO TRANSIT-MIXED CONCRETE CO.

Greater payloads! Better traction! More maneuverability! . . . good reasons to choose Oshkosh

Here's the truck specifically engineered and built for the ready-mix concrete industry — backed by over 39 years' experience in manufacturing 4-wheel drive trucks for on-and-off highway hauling. With 18,000 lbs. payload on each axle, the Oshkosh 50-50 lets you spot load where other concrete carriers can't go . . . to get jobs competition can't handle. Write for full information today!

OSHKOSH

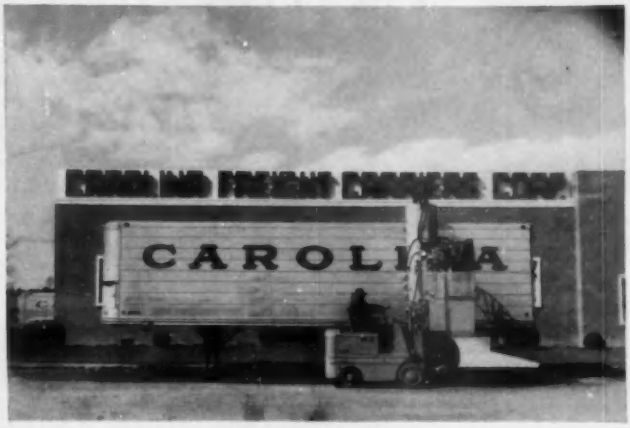


OSHKOSH MOTOR TRUCK, INC.
OSHKOSH WISCONSIN

SHOWING OUR DIFFERENT MACHINES FOR WASHING VANS, TRAILERS AND PANEL TRUCKS



STATIONARY TYPE ON FOUNDATIONS



"WILSON" PATENT MOVABLE VAN WASHER, OPERATING ON LIFT TRUCK. CLEANS SIDES, FRONT AND REAR



JUNIOR WILSON WASHER. LOWER IN PRICE FOR TRAILERS AND TRUCKS.



HORIZONTAL AND VERTICAL BRUSH, WILSON CONVERTIBLE WASHER USED ON "FRUEHAUF" VERTICAL RIBS.

Write Dept. 4-C For Literature and Prices

MANUFACTURED EXCLUSIVELY BY

ROSS AND WHITE COMPANY.

CHICAGO DAILY NEWS BUILDING, CHICAGO

CLYDE P. ROSS, *President* — DAVID E. WHITE, *Vice President* — CARLETON P. ROSS, *Vice President* — R. W. BURRILL, *Contracting Engineer*

"I RIDE THE NEW BOSTROM TRUCK SEAT FOR *Safety* REASONS"

Floyd Pemberton, America's "Truck Driver Of The Year", Reports On The "LEVEL RIDE 80" Truck Seat.



THE FLOYD PEMBERTON REPORT

"I first tested the new Bostrom "Level Ride 80" seat on a run from Detroit to St. Louis. This is a run I make frequently and I know every bump in the road. On this test I tried to hit *all* the bumps to see how the seat would perform. I wish to report that the Bostrom seat was terrific. Bumps, jars and jolts just couldn't reach me. From that test on I've ridden the Bostrom 80 for *safety* reasons. I know this seat helps me drive safely because I take far less vibration in it . . . and at the end of a day's run I feel less tired than I ever did in any other seat."

Floyd Pemberton of Detroit was chosen by ATA as the 1955 "Truck Driver Of The Year." The judges' decision was based on safety record, skill, length of service.



Electronic measurements prove the "Level Ride 80" transmits 80% less vibration to the driver than does any other conventional seat. This means more safety, lower operating costs for you . . . because fresh, rested drivers have fewer accidents.

[**ACT NOW** . . . Write to Bostrom for free descriptive folder.]

LEVEL RIDE 80



The Bostrom "Level Ride 80" is 300% safer than ordinary seats! The principle reason for this is the torsional spring type of suspension, a patented Bostrom exclusive. Bostrom's torsion springs can be adjusted for all driver weights. In addition, five other adjustments can be made to insure "sitting comfort" under all conditions.

BOSTROM®

BOSTROM MFG. CO.
100 W. OREGON ST., MILWAUKEE 4, WISCONSIN

© 1956

THE "LEVEL RIDE 80" IS AVAILABLE AS ORIGINAL EQUIPMENT OR REPLACEMENT—ORDER THROUGH YOUR TRUCK DEALER.

New PRODUCTS

The latest developments in parts, accessories, tools and equipment for the fleet field, described in brief for your convenience

P1. Battery Charger

Five Star Mfg. Co., Clarksdale, Miss., announces a new adjustable battery carrier. Designed to carry all automotive batteries, the battery carrier has three steel tips for gripping and a non-tilting action.

P2. Extra Generator

Delco-Remy Division, General Motors Corp., Anderson, Ind., announces "piggy back" generators to obtain extra electrical power for taxis, police cars, light delivery trucks, cars equipped with "ham" radio or radio telephone service, and other vehicles where charging at low speed is desirable. A 6-volt generator can be mounted "piggy back" with a 12-volt original equipment generator to permit operation of a separate 61-volt system on vehicles equipped with a 12-volt electrical system. Two 12-volt, or two 6-volt generators can be teamed in the same fashion to provide more low-speed or idle-speed output for vehicles which do excessive slow-speed driving. Packaged kits and complete instructions to make the conversion are available.

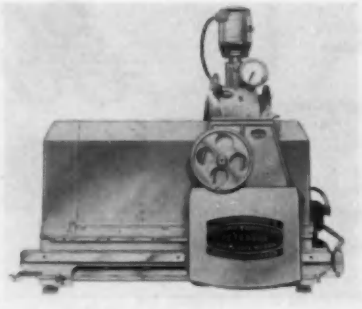


P3. Vehicle Alarm

Notifier Mfg. Co., Lincoln, Nebr., announces its "Kar-Larm," an automatic car burglar alarm that instantly sounds a warning whenever vehicle is tampered with. Detection unit is bolted to the fire-wall of the engine compartment. Electrical connections are made to a hidden control switch and to the horn relay. Any attempt to steal or tamper with the protected vehicle instantly sounds the horn with a distinctive high pitched series of "beeps." When the intruder quits tampering with the vehicle, the unit resets itself in approximately 20 sec.

P4. Surface Grinder

Peterson Welding Labs, Inc., Kansas City, Mo., is marketing a new wet surface grinder to precision grind all heads, blocks and manifolds, including those from newest overhead valve V-8's. These new grinders in the Peterson 900 Series have a work-piece capacity of 14 x 46 in. and automatic reversing which is regulated for each specific job. Other features include loading from overhead, fast set-up, accurate, dust-free, full-vision grinding, and easy conversion for grinding of heads, blocks and manifolds. Automatic feed is optional.



P5. Hand Truck

Brooks & Perkins, Inc., Detroit, have available a new hand truck made entirely of magnesium. The "Push-around" model with a capacity of 350 lb weighs only 16 lb, and can be easily lifted onto or off of a delivery truck by the driver.

P6. Lamp Flasher

Macchi & Co., San Francisco, Cal., announces a heavy duty "Universal" alternating flasher that meets requirements of state laws for alternating warning lights. This flasher has capacity of 15 amp, operates magnetically. Connection to one terminal gives on-off signals. Connection to both terminals gives alternating signals.

P7. Tire Dolly

Cam Tool Co., Oakland, Cal., announces a new dolly for removing, replacing or handling single and dual wheels and brake drum assemblies. T-handle gives complete control of load and maneuvering. Hinged rollers assume angle of axle on jack and prevent binding. A few turns of the ball bearing-equipped caster-jack lifts and lowers the heaviest dual.





P8. Hose Strap

Binks Mfg. Co., Chicago, announces a re-usable spark-proof metal strap that quickly and easily snaps around standard-size air and fluid hoses used in spray painting. The strap locks the two hoses into a single unit in a matter of seconds; twisting and kinking are greatly reduced. It can be undone quickly and re-used several times.

P9. Flasher Light

R. D. Fageol Co., Kent, Ohio, announces a new heavy duty flasher safety light, said to provide 60 to 90 days of continuous operation without servicing or battery replacement. Designated Model No. D-2, the new warning light is powered by a heavy duty 6 volt 8-cell dry battery. Light has a zinc alloy head fitted with dual 4-in. plastic lenses. Producing approximately 90 neon flashes per minute, the light is said to be visible for over 1 mile on either side.

P10. Valve Refacer

Black and Decker Mfg. Co., Towson, Md., announces a new model No. 626 valve refacer with an air chuck that grips the valve stem in the workhead instantly. Machine handles valve heads up to a 4-in. capacity and valve stems from 9/32 to 11/16 in. A special collet is available having a valve stem range from 7/32 to 13/32 in. Valve faces can be traverse ground at any angle from 0 to 90 deg. All popular valve face angles are calibrated on the work table, and the proper angle can be set by adjusting the workhead.



P11. License Holder

Grote Mfg. Co., Bellevue, Ky., has available a new rectangular inspection sticker holder, Model No. 1050. This new holder is designed to accommodate use permits, state inspection stickers or licenses now in use. Housed in formed steel with a black finish, a heavy, transparent plastic window leaves all pertinent information plainly visible. A protective plastic bag seals itself and keeps licenses protected from weather and dirt.

P12. Tube Fittings

Jaco Mfg. Co., Cleveland, Ohio, announces development of a nylon fitting called the "Zytel Miracle" fitting. Simply designed in only two pieces, this fitting is time saving because no flaring of tubing nor exact tube length is required. There is no stripping of threads and every joint is a union. It is re-usable with no lost parts. It is 1/7 the weight of brass, has a temperature range from minus 70 to 295 deg F, will withstand pressure up to 500 psi. It has the corrosive resistance of stainless steel. It is available in sizes from ¼ to ½ in. in all variations.

P13. Steam Cleaner

Homestead Valve Mfg. Co., Coraopolis, Pa., announces a new "Hypressure Jenny" steam cleaner. Features of the unit are said to include: a new slow-speed positive displacement pump with disc check valves which guarantees extra long service, low maintenance, and a minimum of 120 gal per hr at any pressure; a piano hinged machinery cover for complete and easy accessibility to all working parts; a "no-stoop" control panel; contamination-proof water system; and remote control to stop and start machine at cleaning gun even though operator may be 100 ft or more from unit. It is available in 11 different portable or stationary models with a choice of electric motor or gasoline engine drive.





P14. Spray Nozzle

Strahman Valves, Inc., New York City, announces a new hose valve. It has a removable rubber cover and easily serviced working parts of stainless steel and hard bronze. Pistol grip construction and control permits selection of a solid stream, coarse spray, light spray or mist.

P15. Tool Adapter

Thor Power Tool Co., Aurora, Ill., announces a right-angle attachment, Model No. 568, for air- and electric-driven impact wrenches. It fits any ½-in. square drive impact wrench. Featuring a 29/32-in. spindle offset front, right and left to permit operators to move in close on tightly confined work such as head-bolt removal, the compact unit is less than six inches long and has a head height of only 2⅜ in. It weighs 2½ lb.

P16. Tire Changer

Automotive Equipment Co., Lynwood, Cal., announces an air-powered tire changer for mounting and demounting tubeless truck tires. Operating on approximately 125 lb of air pressure, the newly designed machine is capable of mounting or demounting any tubeless truck tire from 17 to 1100 x 24.5 on both plain rims and disc wheels without cones

(TURN TO NEXT PAGE, PLEASE)



New Product Descriptions

Continued from Page 53

or adapters. Operation of the changer is handled by a pair of 2-position control valves. One valve locks the rim in position, the other actuates the pump system which operates the unit. Manual labor of rolling beads on or off the rim is eliminated. Machine need not be bolted down, so it can be moved and operated anywhere air is available.

P17. Auxiliary Axle

Rue R. Elston Co., Minneapolis, Minn., has come up with an auxiliary axle to assist truck and school bus operators on secondary roads weakened by spring thaws. It is an equilizing auxiliary axle for trucks and school buses which will enable them to be operated with normal loads on secondary roads restricted to 5 to 6 ton-axle limits, starting in mid-March and extending in some locations to June. Elston says it is an equalizing axle on which can be transferred up to 40 per cent of the load. It fits all standard truck frames, including those with hanging skirted bodies.

P18. Driver Seat

American Seating Co., Grand Rapids,, Mich., announces a Model No. 300 driver seat with "automatic" adjustment. Says American, all the driver needs to do is raise the rear edge of the full-depth, foam rubber cushion to the most comfortable position with one hand and release. Narrow design back permits elbow room for turns. There are 51 fore and aft adjustments in a 4-in. range, 4 vertical in a 3-in. range and 5 back pitch.



P19. Grille Guard

Voltz Brothers, Inc., Chicago, announces a new grille guard in which the grille extends up to and in some cases beyond the bumper. Types are available for all models of the most widely used trucks, each formed and fitted for secure bolting to the face of the bumper.

P20. Seat Base

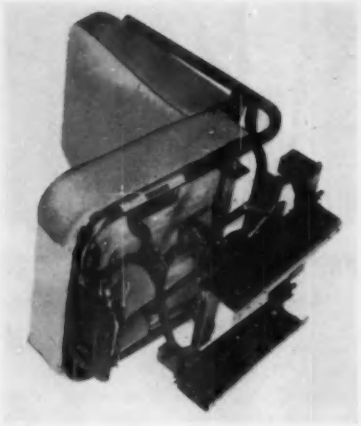
Sky-Ride, Los Angeles, Cal., announces a pneumatic seat base. Illustration shows new base in use featuring hand-operated pump. It can be had to operate from vehicle's air supply. It operates on about 5 lb of



air pressure and riding is controlled by adjusting a knob to obtain any degree of cushioning. Glide adjusting shoes have a 4 to 5 in. fore and aft adjustment. Base comes ready to install without seat.

P21. Welding Clamps

Detroit Stamping Co., Detroit, announces two new all-aluminum portable toggle-type welding clamps. Model Nos. 491-A and 491, which measure 10 in. in length, are of the heavy-duty type and feature narrow deep-throated jaws. They are highly recommended for working in confined areas, for holding sheet metal and for laminations. The other two clamps—Model Nos. 441-A and 441, which measure 6 in. in length—are of the light-duty type and feature smaller, but wider and shorter jaws. They provide maximum hand-clearance.



P22. Truck Seat

Bostrom Mfg. Co., Milwaukee, Wis., announces its "Level Ride" Model No. 80 suspension truck seat can be installed in most all trucks as a replacement unit. The company has designed universal risers for the seat. Installation can be done by removing the original seat risers in the cab. The "Level Ride" seat features adjustable tension springs that can be individually set for the weight of the driver.

P23. Lift Gate

Daybrook Hydraulic Division, L. A. Young Spring and Wire Corp. announces an hydraulic power gate featuring an 180-deg "swing-action" platform for delivery trucks and semi-trailers. It can be placed in a "down-position" for loading and unloading operations where a dock or platform is utilized. The swing of normal hoist platforms is 90 deg, from upright or closed to a horizontal loading position. The new Daybrook "DA" Series power gate provides platform action from the horizontal loading position to a downward vertical position that permits backing the truck or trailer into an established freight area.

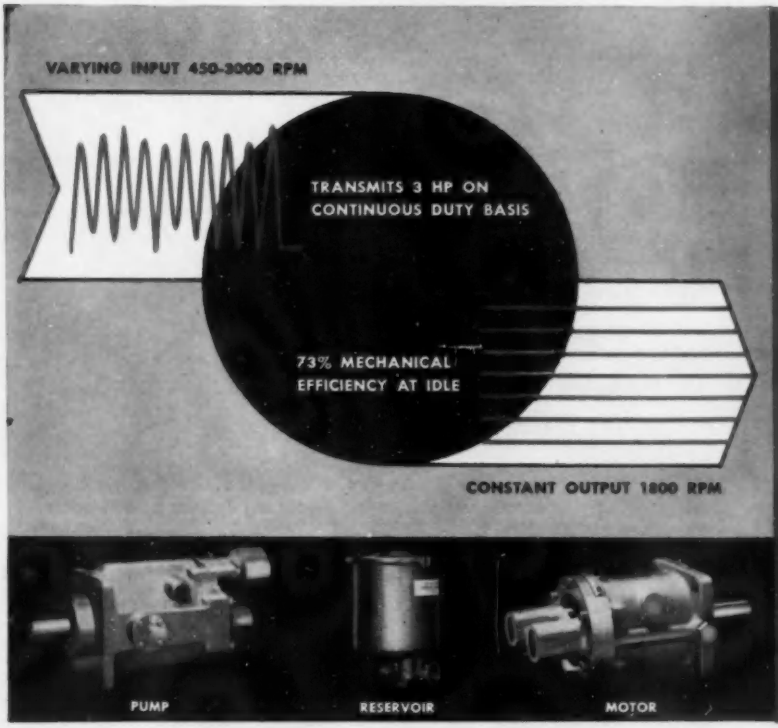
P24. Hose Clamps

Flex-O-Tube Division, Meridian Corp., Inkster, Mich., announces two new hose clamps—a newly designed and engineered push-on fitting for low pressure use on machine tools or for shop air, water, fuel, or lubrication lines, and a special two-bolt clamp fitting for high pressure, heavy duty applications for hydraulic lines, steam hoses or liquid petroleum gas transmission. The push-on fitting is brass, comes in ¼, ⅜, and ½-in. sizes, and is designed for use with a P54 rub-

(TURN TO PAGE 270, PLEASE)

NEW SUNDSTRAND CONSTANT SPEED REFRIGERATION DRIVE

Revolutionary new unit provides full refrigeration capacity at all truck speeds... eliminates auxiliary gasoline engine





Lightweight, compact, quiet, easy to install, minimum maintenance

Here is Sundstrand's answer to many of the problems of truck refrigeration. This revolutionary new hydraulic system eliminates the problems inherent with other types. The system is quiet, compact, needs little maintenance, and consumes no fuel.

This new approach to cold-making consists of a variable speed, constant volume hydraulic pump driven from the truck engine by belt or power take-off; a small oil reservoir which includes a filter; and a hydraulic motor which drives the compressor at a *constant speed* of 1800 rpm. The remarkable feature of the system is that the pump delivers hydraulic fluid to the fluid motor at a constant volume regardless of the operating conditions of the truck. It can be parked, idling, crawling through traffic or up a steep grade, or highballing down the turnpike—still the compressor is driven at the same speed.

This system has been developed specifically for truck refrigeration service to deliver up to 3 hp on a continuous duty basis, with ample capacity to handle starting loads.

Fleet operators like the new system because it is efficient, easy to install and operate, and almost free from maintenance. Drivers like it because they can literally forget it and concentrate on the truck. Send for data sheet which gives complete technical information on this unit. Continuous full capacity truck refrigeration is ready for you now! Available through truck refrigeration system manufacturers.

SUNDSTRAND

SUNDSTRAND HYDRAULIC DIVISION

SUNDSTRAND MACHINE TOOL CO., ROCKFORD, ILLINOIS, U. S. A.

AIRCRAFT AND INDUSTRIAL HYDRAULIC TRANSMISSIONS, PUMPS, MOTORS, AND VALVES • OIL BURNER PUMPS • AIR SANDERS • LATHES, MILLING, BROACHING AND SPECIAL MACHINES • BROACHING TOOLS • MAGNETIC CHUCKS

Fleetman's LIBRARY

For free publications included in this list of new fleet maintenance and safety literature, use the reader service postcard

Lubricating Grease Analysis

The Texas Co.'s January issue of "Lubrication" covers the whys and wherefors of lubricating greases. It's another in a recent group of such presentations that the fleetman should have in his library to assist in the purchase of the right grease for the job.

It describes the various standards and testing methods for greases—appearance and odor, texture, dropping point, consistency, penetration, apparent viscosity, oil bleeding, evaporation loss, particle content, corrosion, oxidation, chemical content.

A two-page chart gives characteristics of greases classified by type of base. **For your free copy, circle L 1 on the postcard on page 52.**

Tire Load and Inflation Chart

A handy pocket-size guide to tire inflation and gasoline mileage has been prepared by Tire Mart, Inc. On one side it lists 40 popular size truck tires, both as to rim size and ply rating, and gives proper inflation pressures for each of the tires at various loads.

The other side is a slide rule-type calculator for fleet operators to determine miles-per-gallon performance of their vehicles.

Circle L 2 on the postcard for your free copy of this handy chart.

Chemical Transportation Book

American Trucking Assns. National Tank Truck Carriers' conference has published a book entitled, "Tank Truck Transportation of Chemicals." It is a compilation of the lectures and discussion at NTTC's School for the Tank Truck Transportation of Chemicals held last fall at the Illinois Institute of Technology.

The book is divided into three main sections—corrosive liquids, transport of chemicals in general purpose tanks and compressed gases, and special commodities. Each section is subdivided into chapters on the properties of the materials involved, tank design, loading and unloading, safety, cleaning and repairing of tanks and legal requirements. Seventeen experienced tank truck fleet operators or manufacturers are represented among the authors.

Copies are available at $10.00 each from National Tank Truck Carriers, Inc., 1424 Sixteenth St., N. W., Washington 6, D. C.

Automobile Repair Manual

Just announced is the 27th edition of Chilton's Automobile Repair Manual. It covers every make and model car from 1940 to date, weighs about 5 lb. It has over 3000 illustrations and charts to supplement the extensive text on every part of automobile repair.

Its editors claim that it takes into consideration the use and wear of parts and provides adjusted specifications to get the most out of any car, where possible, without the use of special tools and gages.

For further information on this complete repair manual, fleet passenger car operator can **circle L 3 on the postcard on page 52.**

Radiator Water Flow Charts

Inland Mfg. Co. has just issued a complete revision of its radiator water flow chart. In 16 pages, it contains nearly 2000 truck, tractor and bus radiator listings with manufacturers' recommendation for gravity water flow in gallons per minute.

For a free copy for your radiator shop, **circle L 4 on the postcard.**

Petroleum Lubricants Standards

Here is the new edition of ASTM Standards on Petroleum Products and Lubricants. Prepared by the Petroleum Products and Lubricants Committee of the American Society for Testing Materials, it includes tentative and standard methods of test, specifications, definitions of terms and classifications, together with related information.

The 984-page book is available at $7.15 with cloth covers or at $6.50 with paper covers. Order it from American Society for Testing Materials, 1916 Race St., Philadelphia 3, Pa.

(TURN TO PAGE 250, PLEASE)

50% more power







THOR MODEL 1500 ORBITAL SPEEDSANDER

This heavy duty orbital-motion electric Thor SpeedSander has wide use in refinishing work, for sanding, buffing, rubbing and polishing. Has 4½" by 9" sanding area; uses sheet or wet abrasives. Ball-bearing construction. Light weight for easy handling.

Sanding metal demands this extra power!

THOR PORTABLE ELECTRIC SANDERS

AVAILABLE ON AN EASY PAYMENT PLAN

SANDING metal efficiently is a job for Thor Electric Sanders, not just ordinary sanders. The difference is in the power. Thor builds EXTRA POWER into the Thor armature, and triple-insulates that armature for long, rugged use. Then Thor delivers that EXTRA POWER through a transmission system of high quality tool steels and gearing, fully mounted on ball bearings.

Other important Thor advantages include light weight, compact design, and removable side handle for right or left hand use. Thor's handy spindle lock permits fast disc changes. The exclusive Thor rubber tool rest protects tool and car finish.

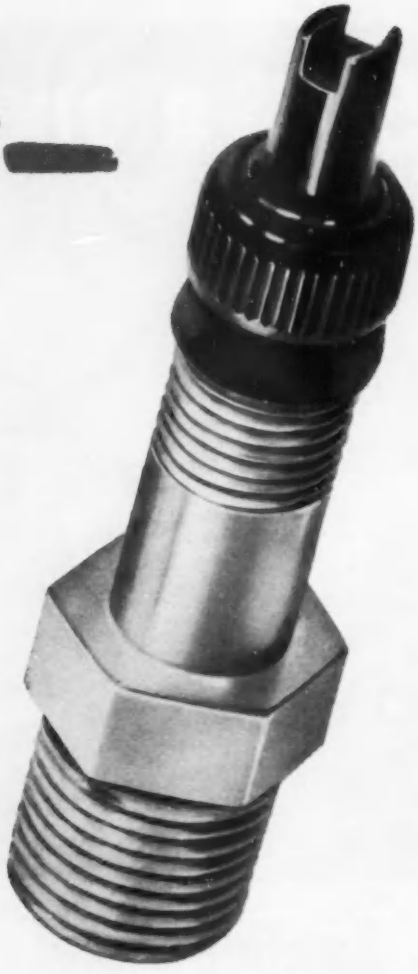
Ask your Thor jobber for a demonstration—there's a Thor Electric Sander in every disc size and capacity you require. Ask him about Thor disc trimmers, discs, backing pads and other accessories. Thor Power Tool Company, Aurora, Ill.

Thor
PORTABLE POWER
TOOLS

THOR POWER TOOL COMPANY

Atlanta • Birmingham • Boston • Buffalo • Chicago • Cincinnati • Cleveland • Denver
Detroit • Houston • Los Angeles • Milwaukee • Newark • Long Island City, N.Y. • Philadelphia
Pittsburgh • St. Louis • San Francisco • Seattle • Toronto, Canada • Export Division, New York City

At last—



GIVES YOU THESE TIMESAVING, MONEYSAVING ADVANTAGES:

- Fits all Goodyear tubeless highway rims
- Lowers maintenance expense
- Cuts down-time
- Costs much less than previous valves
- Streamlines parts inventories

ANOTHER BIG REASON why you get more for your money when you buy and specify Goodyear rims and valves!

Here is what you've been looking for—a simple, inexpensive valve which can be adapted to any current production Goodyear tubeless highway rim, regardless of size, type or make of wheel on which it is used.

This new valve fits all sizes of Goodyear demountable and non-demountable Drop Center Tubeless truck rims—and famous Tru-Seal over-the-road rims, too.

Its simplicity assures ease of handling—uses a minimum number of valve parts—speeds up assembly and reduces chances of faulty operation.

It's based on a principle—the tank valve—which has been thoroughly proved in countless usages. (Steam or air fitting in plants, for example.)

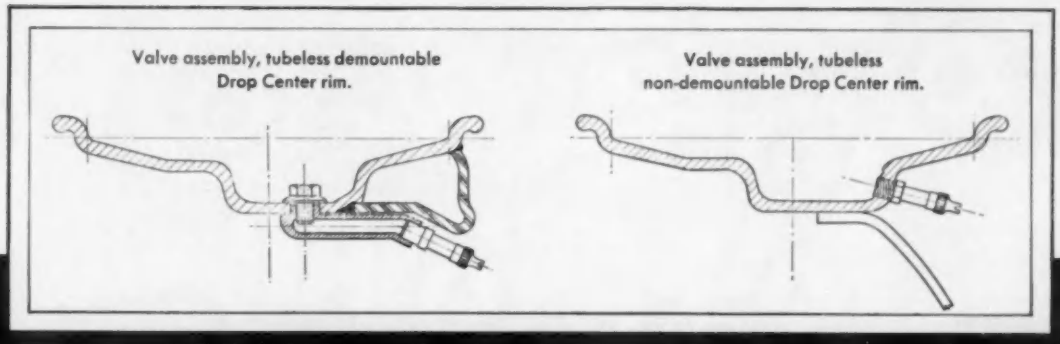
So here at last is a development which enables you to take full advantage of the economy and convenience of tubeless truck tires—another sound reason why it will pay you to adopt the complete Goodyear rim program.

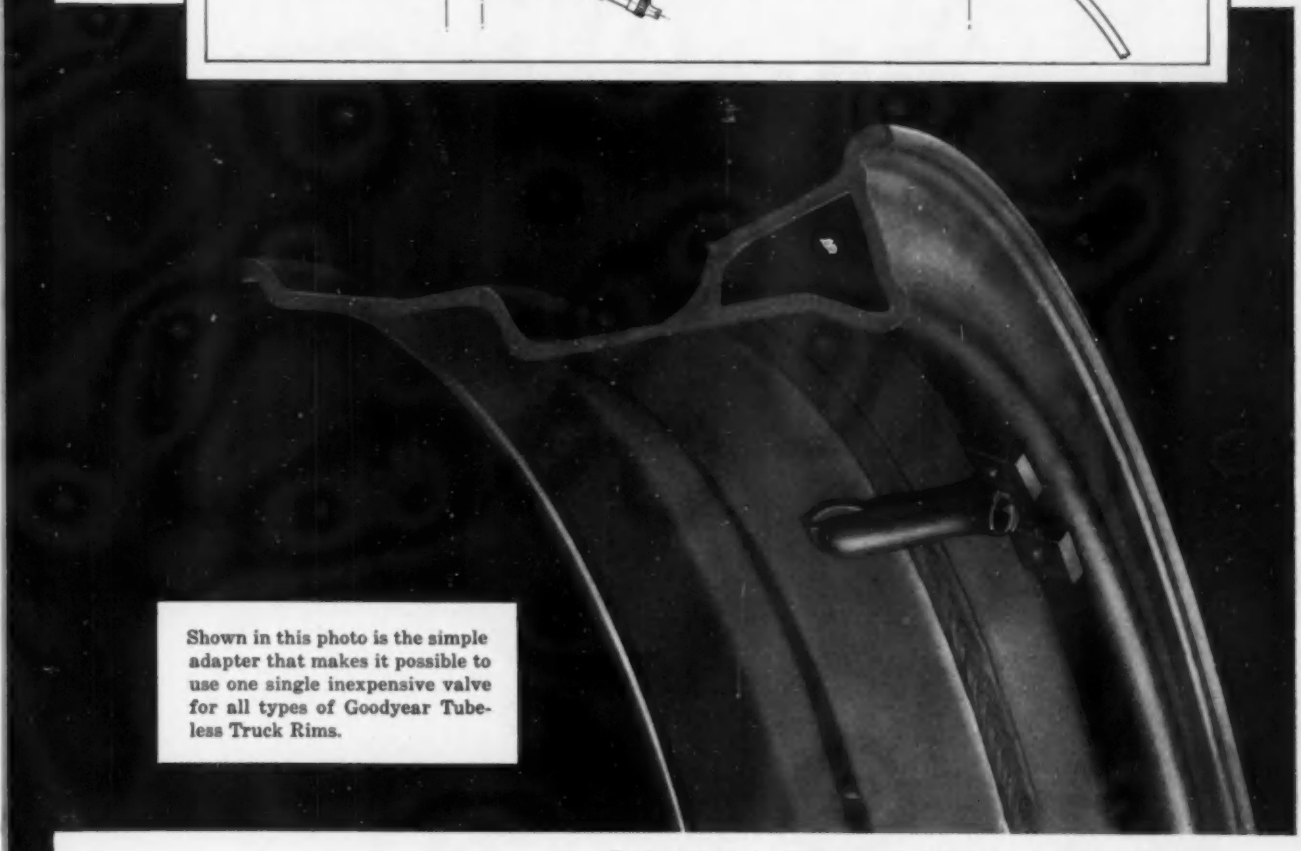
Whether your equipment is the smallest truck or the largest earth-mover, you'll find a Goodyear rim that's made for the job. Why not talk it over with the G. R. E. (Goodyear Rim Engineer). He'll help you select the size and type of rim best suited to your needs. Write him at Goodyear, Metal Products Division, Akron 16, Ohio, or see your local Goodyear Rim Distributor.

No longer need you choose among a huge variety of valves to find the right one for the job.



one valve does it all!





Shown in this photo is the simple adapter that makes it possible to use one single inexpensive valve for all types of Goodyear Tubeless Truck Rims.

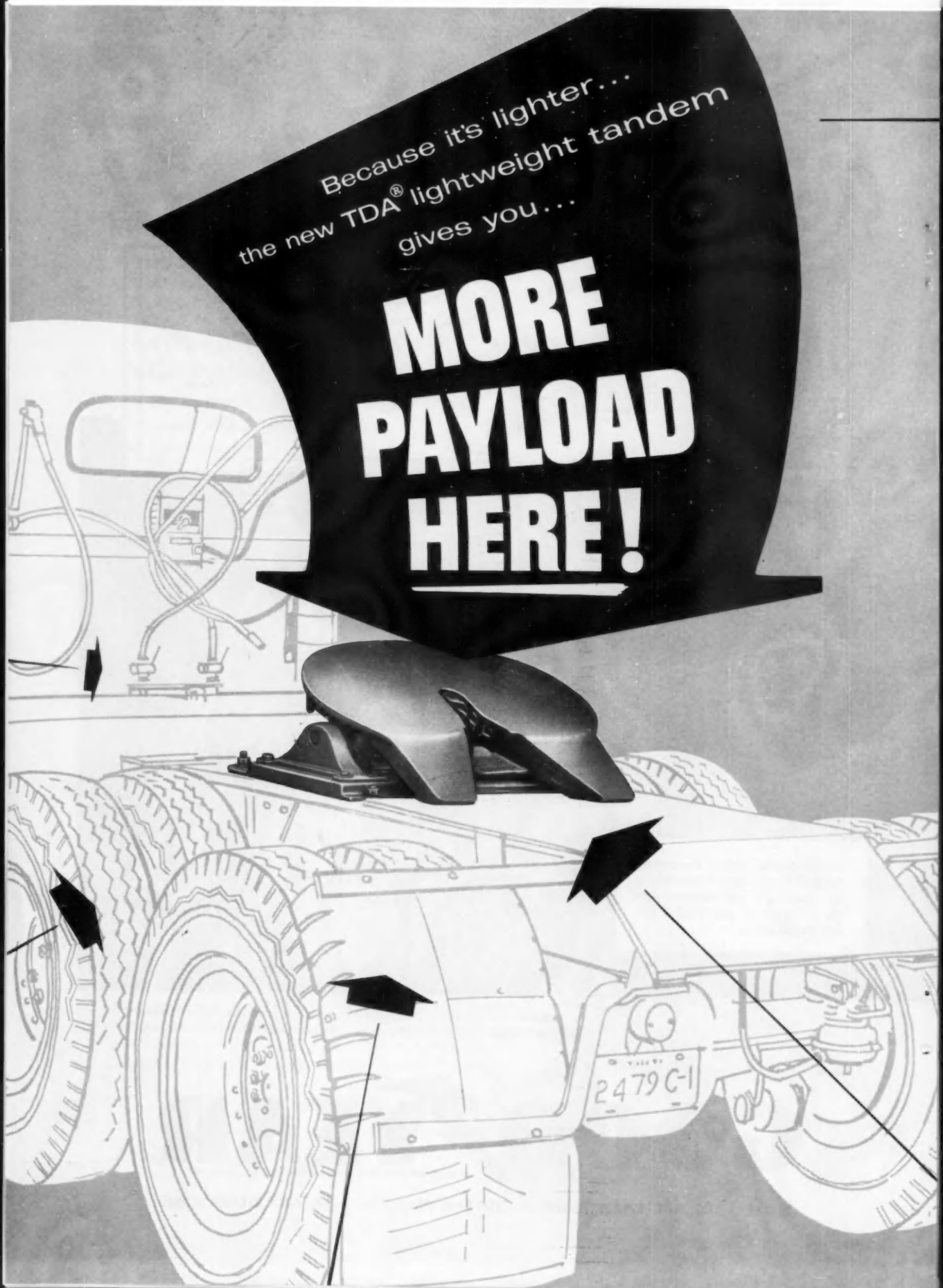
Exclusive Goodyear Bond-a-Coat finish provides long-lasting resistance to rust and corrosion—permits you to store rim outdoors.

Buy and Specify

GOODYEAR

Tru-Seal—T. M. The Goodyear Tire & Rubber Company, Akron, Ohio

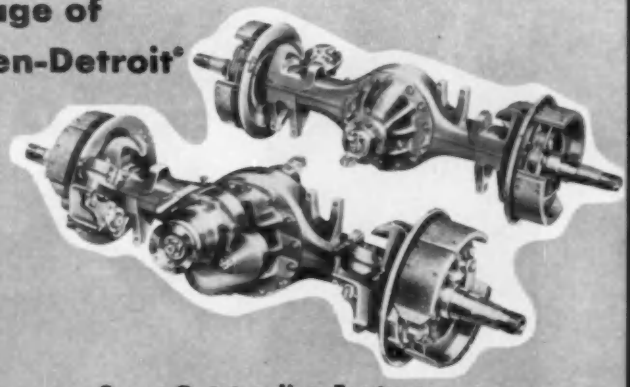
MORE TONS ARE CARRIED ON GOODYEAR RIMS THAN ON ANY OTHER KIND


Because it's lighter...
the new TDA® lightweight tandem
gives you...
MORE
PAYLOAD
HERE!
2479 C-1

this means...

8,500 EXTRA TON-MILES PAYLOAD A YEAR

...and it's built with a high percentage of parts interchangeable with Timken-Detroit® standard single axle components



There are important *payload bonuses* for truckers in TDA's new lightweight tandem. Over 230 pounds lighter than any unit of the same capacity, this new axle assembly gives operators more than 8500 extra ton-miles of payload during an average 75,000-mile trucking year.

Important *maintenance advantages* also are gained with this new tandem. Almost all of the wearing parts—gears, pinions, differentials, bearings and brakes—are identical with components from widely used TDA standard single axles. This means easier service, smaller parts inventory, and more time on the road.

Some Outstanding Features of this New Timken® Tandem

TDA Inter-Axle Differential divides torque evenly between axles . . . yet permits wheels of one axle to revolve faster or slower than wheels of the other axle. This means both axles are doing equal amounts of work . . . driving parts and tires last longer.

Driver-Controlled Lockout—with TDA Inter-Axle Differential, the driver can obtain the advantages of straight-through drive under slick or icy conditions by locking out the differential at any driving speed.

Big, Dependable Hypoid Gears rotate in conventional direction for maximum gear and bearing life.

Optional Axle Connecting Groups. This new tandem is available with either TDA famous "Cradle Ride" axle connecting parts, or brackets to accept other approved chassis hook-ups.

This new tandem insures new payload profits, faster, easier service and operating economies for operators everywhere. For complete information contact your nearest vehicle dealer or branch.

TIMKEN Detroit AXLES

TIMKEN-DETROIT AXLE DIVISION
ROCKWELL SPRING AND AXLE COMPANY
DETROIT 32, MICHIGAN

The Accepted TDA Standard
TRADE MARK REGISTERED

WORLD'S LARGEST MANUFACTURER OF AXLES FOR TRUCKS, BUSES AND TRAILERS

©1956 RS & A Company

Plants at: Detroit, Michigan • Oshkosh, Wisconsin • Utica, New York • Ashtabula, Kenton and Newark, Ohio • New Castle, Pennsylvania

Only ARMSTRONG Can Promise and Deliver

EXTRA MILEAGE-EXTRA RECAPS AT NO EXTRA COST!



Truckers Certified Records Prove: ARMSTRONGS Keep Operating Costs Lower!

Armstrongs give you so many more miles . . . so many more recaps for your money because Armstrongs are made *stronger!* Two exclusive extra insert plies plus the breaker strip help hold the carcass tight . . . reduce tire growth and mileage-consuming "stretch." And by guarding against heat and impact breaks, they make Armstrongs up to *71% more recappable!* Yes, Armstrongs wear longer — *yet cost no more!* Good reason to switch to Armstrong!

Remember: You Get Double Insert Plies *Only* In

ARMSTRONG TRUCK TIRES

The Armstrong Rubber Co., Home Office, West Haven, Conn.



1. Drive-Through Service Bay 2. Parking Areas 3. Eating Facilities 4. Message Center

"Here's Everything a Trucker needs!"

To keep 'em rolling on schedule, many long-distance truckers rely on the modern facilities available at Sinclair-Planned Truck Stops. These conveniences are based on the sound, practical planning help Sinclair offers to Truck Stop Dealers. Sinclair's thorough knowledge of truckers' needs helps Dealers set up better services and facilities. And truckers benefit!

Typical services include: 24-hour operation, road service, repair facilities, teletype message centers, tire "banks," etc. Sinclair also considers the "human element" in its truck stop planning—with special attention to shaving and shower facilities, good food, comfortable beds and TV lounges.

An additional aid important to truckers is the Sinclair Route Survey Service . . . which provides an individual analysis on any given routing problem of public or private carriers. This analysis is a free service. It shows the most practical, direct routes. It also designates modern truck stops for regular or emergency use.

If you would like complete information about these special services available to you through Sinclair, fill out and mail the attached coupon. *There's no obligation.*

STOP! at SINCLAIR PLANNED TRUCK STOPS

...to Keep 'em Rolling!

Mail this coupon for further information. There's no obligation.

SINCLAIR REFINING COMPANY
Truck and Bus Sales Division, 600 Fifth Avenue, New York 20, N. Y.

At no obligation, send me:

☐ Booklet Listing Truck Stops
☐ Information on Sinclair's Route Survey Service

Name_____

Company_____

Position_____

Address_____

CCJ BULLETIN BOARD

DEAD RIGHT



You may be dead right at an intersection argument—but what in hell will that do for you? Right or wrong, dead is dead, and who can argue with the undertaker . . .

Knowing the rules doesn't always make you a good driver. Many times the guy who is too sure of his "rights" is just as unsafe as the bloke who hasn't gotten around to thinking about them yet.

In other words, it takes two to tangle . . .

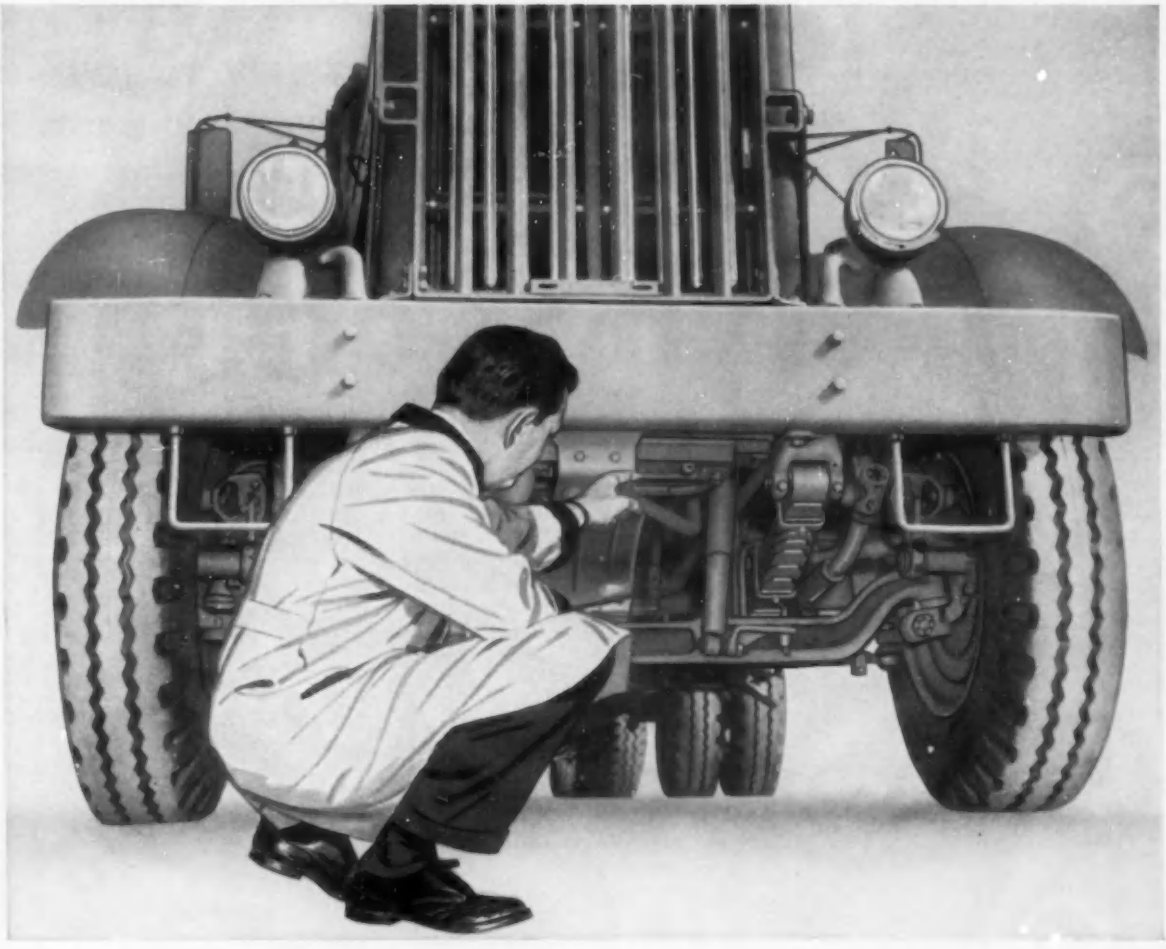
The right of way doesn't protect anyone at an intersection and being right doesn't necessarily absolve you of the blame. For instance, it's usually taken for granted that at an unmarked intersection the vehicle on the right has the right of way. But if you keep no lookout to the left and assume that traffic will yield, then you become a hazard and as such lose your "right."

Most of the other laws and regulations are as sneaky as that.

Stop signs protect—but they don't give anyone the right to push through an intersection without caution. Signaling intentions of turning doesn't give a man the right to turn. Too many road bandits stick out an arm or snap on a light and actually believe that they can then do as they please.

So don't stand on the Constitution until and unless it's standing in a pretty safe place.

CLIP AND POST ON YOUR OWN BULLETIN BOARD —— REPRINTS AVAILABLE AT NOMINAL COST



Look Underneath!

No doubt about

AUTOCAR QUALITY

No doubt about Autocar superior frame structure . . . the all-bolted construction . . . stable front end. And there's lots more to the husky Autocar when you look underneath —and compare! When you demand top quality for your truck dollar—there is no choice—it's AUTOCAR for the most work, the longest truck life, the lowest operating cost!

AUTOCAR TRUCKS

DIVISION OF THE WHITE MOTOR COMPANY, EXTON, PA.

Ask your Autocar Representative—Or WRITE—now!

AUTOCAR DIVISION
The White Motor Company
Exton, Pa.

Send me facts about AUTOCAR QUALITY in terms of my business

Name_____

Firm_____

Address_____

City_____ Zone____ State_____

3-D



Laugh it off!

BLOOD BANK NURSE: "HEY, YOU, TRUCK DRIVER OVER THERE FROM FLEETY-FLEET EXPRESS, JUST GET ON THAT BED DOWN THERE IN THE CORNER, AND I'LL BE WITH YOU IN A MINUTE."

CCJ

Dentist: "Lady, quit shaking your arms and don't make such awful faces. I haven't started to drill your tooth yet."

Safety Sadie: "I know you haven't but, for pity sakes, get off my corns."

CCJ

Steno Lou: "My boy friend is a gentleman from the word 'Go'."

Steno Sue: "My boy friend is ungentlemanly from the word 'Stop'."

CCJ

The Terminal Manager for Fleety-Fleet Express, a former sea captain, was giving his daughter merry hell about keeping late hours. "I won't have it! Going out in that young landlubber's car and not getting home until after midnight."

Petite Daughter: "But Daddy, we were becalmed. The wind died down in two of his tires."

CCJ

Tank Truck Driver: "You know that cute little blonde waitress up at the Diamond Jubilee Diner?"

Reefer Driver: "Yes. She's a real cutie, isn't she?"

Tank Driver: "Yeah and you know somethin'? She told me she paid three dollars for her stockings up in New York. And she says you can't touch them for less than ten, here."

Reefer Driver: "What did you say to that?"

Tank Driver: "I told her I'd see her some other time."

Mechanic: "This is the garage. Your wife just drove in here to have her car repaired and I want . . ."

Freight Claim Agent (wearily): "Okay, okay. Just go ahead and fix the car and I'll pay for it."

Mechanic: "That isn't what I'm calling about. Who's going to pay to fix my garage?"

CCJ

Cute Redhead: "Darling, do you think this house is spooky?"

City Delivery Driver: "No, dear. Why do you ask?"

Cute Redhead: "Because, I feel a cold hand creeping over me."

CCJ

CLAIM DEPT. STENO: "SIR, I WANT TO COMPLAIN ABOUT THE PERFUME I BOUGHT HERE AT YOUR COSMETICS COUNTER. YOUR AD SAID MY BOY FRIEND WOULD FALL FOR ME. HE DIDN'T. INSTEAD I WIND UP MAKING A PASS AT HIM BECAUSE OF HIS SHAVING LOTION."

Cici Jay



"Coming, Bart, coming! Shall I bring my notebook?"

SLIM 'N GREASY SAYS: "MY GIRL TELLS ME THAT HER HEART BELONGS TO ME, BUT THE REST OF HER KEEPS GOING OUT WITH OTHER MEN ALL THE TIME."

CCJ

Reefer Truck Driver: "Where's that chicken in the basket I ordered an hour ago?"

Diner Waitress: "It'll be along soon, sir. The cook hasn't killed it yet, but she's getting in some nasty blows."

CCJ

Fleet Sales Manager: "Are you married?"

Sales Job Applicant: "No, I'm not. But I can take orders if that's what you mean."

CCJ

Exhaust Inspector: "Every morning my wife gives me an organ recital, without stops!"

Maintenance Superintendent: "I didn't know your wife was a musician."

Exhaust Inspector: "She ain't! I mean she talks about her ills . . . heart, liver, lungs, kidneys. . . ."

CCJ

Truck Driver: "Picked up a little weight, haven't you, Babe?"

Diner Waitress: "No, I haven't! I weigh 118 in the nude, and I can prove it!"

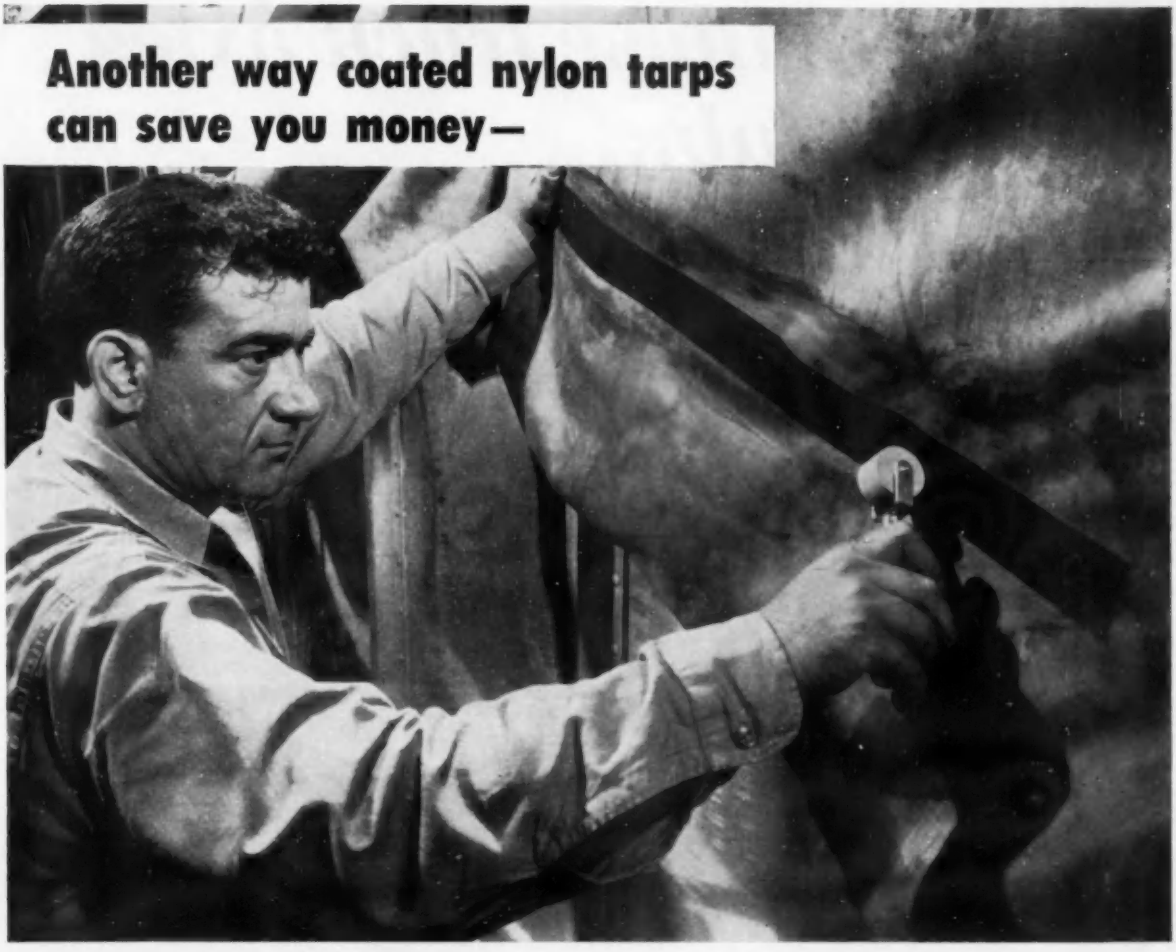
CCJ

Steno May: "Do you know something? All my family were great swimmers."

Steno Fay: "Yeah, I know. I heard your brother was killed in a dive on the East Side."

Resume Work

Another way coated nylon tarps can save you money—



Easy-to-repair coated nylon tarps cut maintenance costs

In your shop, on the road, or (as shown here) right on the truck—coated nylon tarps can be repaired quickly and easily. No costly stitch patching is needed. Your driver or maintenance man can apply a patch in a matter of minutes.

Coated nylon tarps are tough and durable . . . last up to three times as long as the ordinary kind. They're *waterproof*, too—not merely water-repellent. This means maximum protection against water-damage claims. Wet or dry, coated nylon tarps resist damage from mildew and rot.

And coated nylon tarps are easy to handle. They're lightweight—⅓ to ½ the weight of ordinary tarps, and flexible even in sub-zero temperatures.

Discover how coated nylon tarps can save you time and money. Ask your fabricator or fabric supplier for complete information, or write E. I. du Pont de Nemours & Co. (Inc.), (CC-4), 2494 Nemours Bldg., Wilmington 98, Del.



- Waterproof
- Longer-lasting
- Easier to repair
- Lighter-weight
- Resistant to rot and mildew

DU PONT
REG. U.S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING
...THROUGH CHEMISTRY

LIGHTER—LONGER-LASTING

TRUCK TARPAULINS OF COATED DU PONT NYLON

We broke these truck axles in the lab...



In the INTERNATIONAL Engineering Laboratory, axle shafts are tested by twisting them back and forth—hundreds of times—at stress points far beyond those of any normal truck operation. Axle shafts are approved for manufacture only when they withstand a prescribed high number of twists. Production line axle shafts must conform to the quality standards set up by this rigid test.

to save you the BIG money!

Pictured above is a group of once fine and costly INTERNATIONAL axle shafts that have been purposely twisted and broken. This is done to make sure your INTERNATIONAL rear axle will last longer and save you the BIG money—the over-the-years operation and maintenance money.

This rigorous axle-twist test is but one of many operations in the chain of INTERNATIONAL engineering that makes INTERNATIONALS *all-truck*. There are no passenger car compromises *anywhere* in INTERNATIONAL design, no passenger car engines or components asked to do a truck job.

And beyond this big plus of all-truck design, INTERNATIONAL gives you functional, practical, money-saving styling—extra comfortable driver-saving cabs—every modern driving feature.

If you use a truck to make money, see your INTERNATIONAL Dealer or Branch and start saving the BIG money!

INTERNATIONAL HARVESTER COMPANY • CHICAGO



Model R-195 ROADLINER,® GCW 50,000 lbs. In the world's most complete truck line there are models exactly right for every highway hauling job. Conventional and COE, 4- and 6-wheel ROADLINER models, 29,000 lbs. to 76,800 lbs. GCW.

INTERNATIONAL® TRUCKS

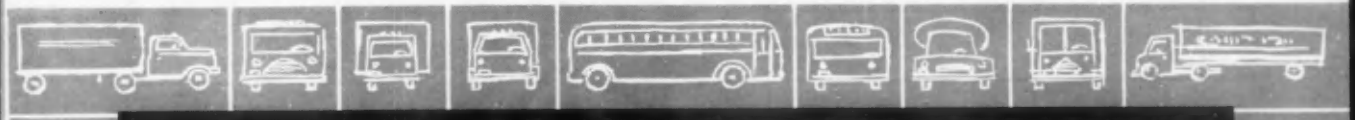
All-Truck Built to save you the BIG money!

Motor Trucks • Crawler Tractors • Industrial Power
McCormick® Farm Equipment and Farmall® Tractors

SECTION 1

TRUCK & BUS MAINTENANCE

1956 COMMERCIAL CAR JOURNAL'S FLEET OPERATORS' REFERENCE ANNUAL



Trucks

Autocar..... 70
Brockway..... 72
Chevrolet..... 74
Diamond T..... 76
Divco..... 96
Dodge..... 78
Duplex..... 70
FreightLiner..... 72
Ford..... 80
FWD..... 82
GMC..... 84
International..... 86
Kenworth..... 88
Marmon-Herrington..... 80
Oshkosh..... 90
Peterbuilt..... 92
Reo..... 94
Studebaker..... 96
Walter..... 92
Ward-LaFrance..... 88
White..... 98
Willys..... 98

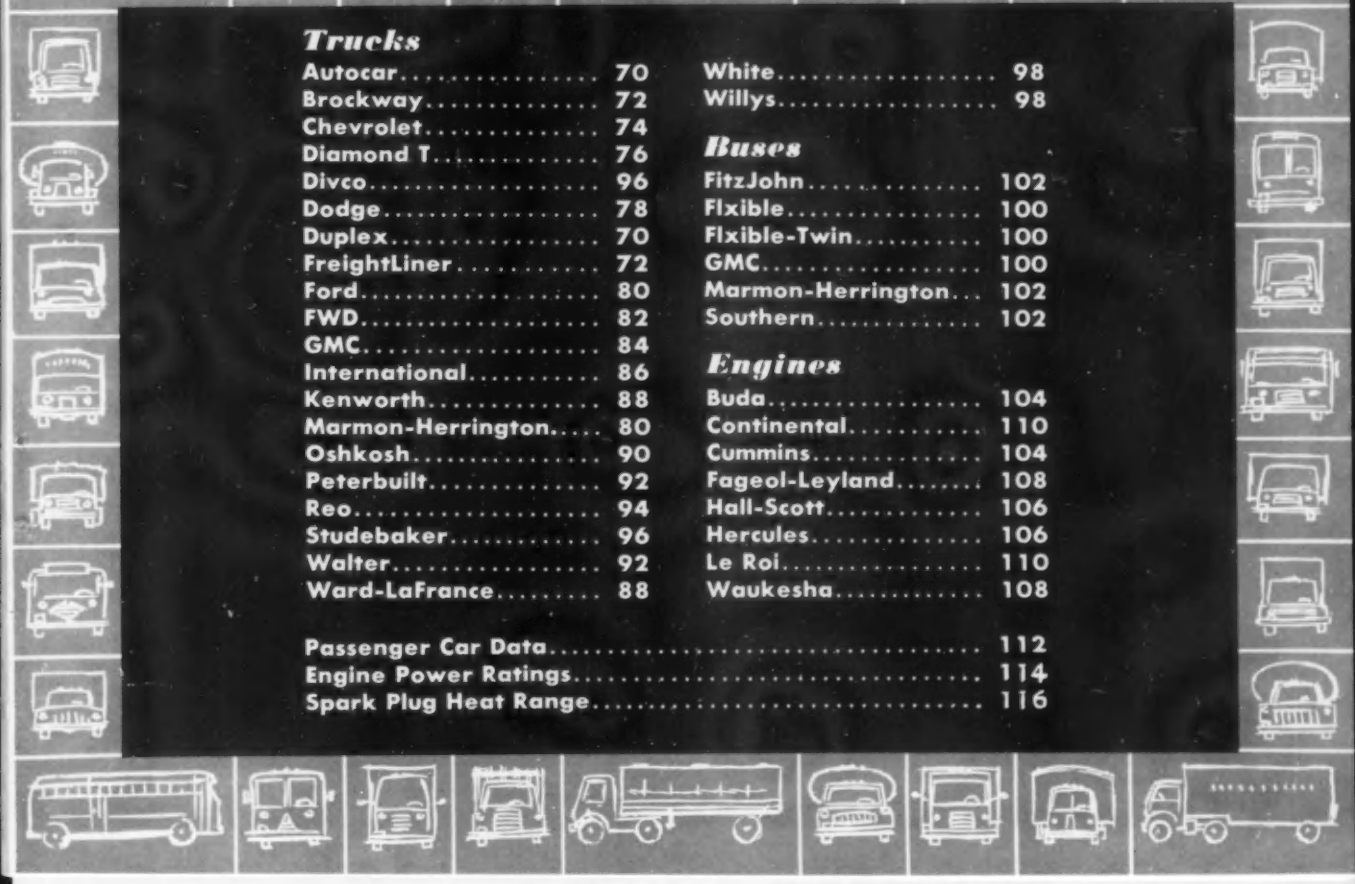
Buses

FitzJohn..... 102
Flxible..... 100
Flxible-Twin..... 100
GMC..... 100
Marmon-Herrington... 102
Southern..... 102

Engines

Buda..... 104
Continental..... 110
Cummins..... 104
Fageol-Leyland..... 108
Hall-Scott..... 106
Hercules..... 106
Le Roi..... 110
Waukesha..... 108

Passenger Car Data..... 112
Engine Power Ratings..... 114
Spark Plug Heat Range..... 116



TRUCK DATA

AUTOCAR DUPLEX

ENGINE	SIZE	OIL	C.P.	IGNITION						VALVES								
	Number of Cylinders, Bore and Stroke	Normal Oil Pressure, Lb. at M.P.H. or R.P.M.	Compression, psi at Cranking Speed	Distributor Rotation	Cam Angle (deg.)	Breaker Point Gap	Breaker Arm Tension (oz.)	Spark Occurs °TC B-Before A-After	Spark Occurs Flywheel Teeth °TC B-Before A-After	Intake Valve Opens B-Before A-After °TC	Intake Valve Opens B-Before A-After Flywheel Teeth °TC	Intake Tappet Clearance for Valve Timing	Operating Tappet Clearance (Hot unless noted) Intake	Operating Tappet Clearance (Hot unless noted) Exhaust	Seat Angle (deg.)	Face Angle (deg.)	Guide Clearance
AUTOCAR																	
White 390A	6-4 3/4x5	40-2900	....	Ca	34	.022	21	6B	....	15B	....	....	0	0	45	45	b
Cum HR8-600	6-5 1/2x6	40-1800	525	....	..	....	..	....	....	5B	....	....	.014	.022	30	30	....
DUPLEX																	
Her JXD	6-4x4 1/2	26-1600	95	....	....	.020	....	....	....	5A	....	.006	.006	.008	....	....	....
Her WXLC3	6-4 1/4x4 1/2	26-1600	95	....	....	.020	....	....	....	2A	....	.010	.006	.010	....	....	....
Her RXC	6-4 3/4x5 1/2	36-1600	95	....	....	.020	....	....	....	2A	....	.010	.010	.016	....	....	....
Con U6501	6-4 1/2x5 1/4	40-50	100	....	....	....	....	....	....	17B	....	....	.016	.024	....	....	....
Her RXLD	6-4 3/4x5 1/4	36-1600	95	....	....	.020	....	....	....	2A	....	.010	.010	.016	....	....	....
Con R6602	6-4 7/8x5 5/8	50-60	120	....	....	....	....	....	....	17B	....	....	.018	.024	....	....	....
Con B6427	6-4 5/8x4 7/8	40-50	120	....	....	....	....	....	....	16B	....	....	.017	.022	....	....	....
Con F6244	6-3 7/16x4 3/8	.....	115	....	....	....	....	....	....	....	....	....	....	....	....	....	....

ENGINE	SPARK PLUGS				PISTONS, RINGS				VALVE SPRINGS				CAM	
									Valve Open		Valve Closed			
	Make	Type	Size	Gap	Piston Clearance	Oil Ring Side Clearance	Comp. Ring Side Clearance	Ring End Gap	Pressure (Av. lb.)	Length—in.	Pressure (Av. lb.)	Length—in.	End Play	Bushing Clearance
AUTOCAR														
White 390A	CH	6 Com	18	.025	.005	.002	.003	.013-.023	175-185	1.827	90-100	2.250	.003-.005	.001-.003
Cummins engines	See Cummins engines, page 104													
DUPLEX														
Her JXD	AL	AT8	14	.025	....	....	....	....	58	1.594	43	1.920	....	....
Her WXLC3, RXC, RXLD	AL	AT8	14	.025	....	....	....	....	102	2 3/32	50	2 11/32	....	....
Con U6501	CH	5 Com	18	.025	....	....	....	....	O.160	1.617	67	2.117	....	....
Con R6602	CH	J8	14	.025	....	....	....	....	I. 90	1.367	38	1.867	....	....
Con B6427	CH	8 Com	18	.025	....	....	....	....	144	1.316	69	1.617	....	....
Con F6244	CH	8 Com	18	.025	....	....	....	....	....	....	....	....	....	....

NOTES

a—Viewed from top.
b—Intake .0017-.0032, exhaust .0028-.0045.

c—Data given for standard generator.
d—SAE 50 engine oil.

ENGINE	TENSIONS		
	Cylinder Head (Lbs. ft.)	Main Bearings (Lbs. ft.)	Connecting Rod Bearings (Lbs. ft.)
AUTOCAR			
White 390A	105-110	80-90	95-100
Cummins engines	See Cummins, page 104		

MODEL	ENGINE	
	STANDARD	OPTIONAL
AUTOCAR		
C65T, C65D, C6564, C9564, C87D, C10364S	White 390A	
DC65T, DC6564	Cum JT	
DC74T, DC75T, DC7564	Cum HRB	Cum HRFB
DCU75T, DC87D	Cum HRB	Cum HRFB, NHB, NT
DC9564, DC10264, DC103D, DC10364S, DC10464S	Cum HRB	Cum HRFB, NHB, NT, HRBS, NHBS, NHRBS
DC102, DC102T, DC103T	Cum HRB	Cum HRFB, NHB, HRBS, NHBS, NHRBS
DC10264L	Cum HRB	Cum HRFB, NHB

MODEL	ENGINE	
	STANDARD	OPTIONAL
DUPLEX		
TH	Her JXD	
RH	Her WXLC3	
KH	Her RXC	Con U6501
LH	Her RXLD	
L6602	Con R6602	
GR (6x4 and 6x6)	Con B6427	
HRG-6x4	Her RXLD	
WC244	Con F6244	

ENGINE	GENERATOR			STARTER						RODS, PINS			C. SHAFT		
	Brush Spring Tension	Max. Charge Rate	Voltage	Brush Spring Tension	Amp. (No Load)	Voltage (No Load)	Torque (Lock)	Amp. (Lock)	Voltage (Lock)	Pin Clearance	Rod Bearing Clearance	Rod Side Clearance	End Play	Main Bearing Clearance	End Thrust Carried on
AUTOCAR															
White 390A	C25	40	12	24-28	75	11.25	29	615	5.85	.0003-.0008	.003-.004	....	.004-.009	.0035-.0045	Center main

MODEL	ENGINE	BATTERY					FRONT END				CAPACITIES				FAN BELT		
		Amp. Hour Capacity	Number of Plates	Terminal Grounded	S.A.E. Group Number	A.A.B.M. Group Number	Toe-In (In.)	Camber (Deg.)	Caster (Deg.)	King Pin Slant (Deg.)	Engine Oil (Qt.)	Transmission Oil (Pt.)	Rear Axle Oil (Pt.)	Cooling System Capacity (Qt.)	Circumference (In.)	Width (In.)	Angle of "V" (Deg.)
AUTOCAR																	
C65T	White 390A	120	17	Pos	2	2	0-1/8	1	-3/4 +3/4	5 1/2	16	24	25	38	....	....	....
C65D	White 390A	120	17	Pos	2	2	0-1/8	1	-3/4 +3/4	5 1/2	16	24	18	38	....	....	....
C6564	White 390A	120	17	Pos	2	2	0-1/8	1	-3/4 +3/4	5 1/2	16	24	44	38	....	....	....
C9564	White 390A	120	17	Pos	2	2	0-1/8	1	-1 +1	8	16	24	44	38	....	....	....
C87D	White 390A	120	17	Pos	2	2	0-1/8	1	-1 +1	8	16	24	18	38	....	....	....
C10364S	White 390A	120	17	Pos	2	2	0-1/8	1	-1 +1	8	16	24	56	38	....	....	....
DC65T	Cum JT	140	21	Pos	4	4	0-1/8	1	-3/4 +3/4	8	16	24	25	31	....	....	....
DC6564	Cum JT	140	21	Pos	4	4	0-1/8	1	-3/4 +3/4	8	16	24	44	31	....	....	....
DC74T, DC75T	Cum HRB	140	21	Pos	4	4	0-1/8	1	-3/4 +3/4	8	28	24	25	40	....	....	....
DC7564	Cum HRB	140	21	Pos	4	4	0-1/8	1	-3/4 +3/4	8	28	24	44	40	....	....	....
DCU75T	Cum HRB	140	21	Pos	4	4	0-1/8	1	-1 +1	8	28	24	25	40	....	....	....
DC87D	Cum HRB	140	21	Pos	4	4	0-1/8	1	-1 +1	8	28	24	18	40	....	....	....
DC9564	Cum HRB	140	21	Pos	4	4	0-1/8	1	-1 +1	8	28	16	44	40	....	....	....
DC103D	Cum HRB	140	21	Pos	4	4	0-1/8	1	-1 +1	8	28	16	24	40	....	....	....
DC10364S	Cum HRB	140	21	Pos	4	4	0-1/8	1	-1 +1	8	28	16	56	40	....	....	....
DC10264, DC10264L	Cum HRB	140	21	Pos	4	4	0-1/8	1	-3/4 +3/4	5 1/2	28	16	44	40	....	....	....
DC102T	Cum HRB	140	21	Pos	4	4	0-1/8	1	-3/4 +3/4	5 1/2	28	16	18	40	....	....	....
DC102	Cum HRB	140	21	Pos	4	4	0-1/8	1	0 2	8	28	16	18	40	....	....	....
DC103T	Cum HRB	140	21	Pos	4	4	0-1/8	1	0 2	8	28	16	18	40	....	....	....
DC10464S	Cum HRB	140	21	Pos	4	4	0-1/8	1	-1 +1	8	28	16	56	40	....	....	....
DUPLEX																	
GR (6x6)	Con B6427	....	....	Pos	....	....	0	....	....	0	....	....	....	....	....	....	....
TH, RH	Her JXD, WXLC3	....	....	Pos	....	....	1/8-3/8	1 1/2	....	5 1/2	....	....	....	....	....	....	....
All others	....	....	....	Pos	....	....	1/8-1/4	....	....	5 1/2	....	....	....	....	....	....	....

MODEL WITH STANDARD ENGINE	LUBRICATION								
	Engine			Transmission		Rear Axle		Steering Gear	
	Viscosity and Temperature Range			Summer	Winter	Summer	Winter	Summer	Winter
AUTOCAR									
All Models—HD	30 above 40°	20 @ 40° to 10°	10W below 10°	50(d)	50(d)	140	90	140	90
DUPLEX									
TH, WC244	40 above 80°	30 @ 80°—32°	20W @ 32°—0°	140	90	140	90	....	....
All others	50 above 80°	40 @ 80°—32°	20W @ 32°—0°	140	90	140	90	....	....

TRUCK DATA

BROCKWAY FREIGHTLINER

ENGINE	SIZE	OIL	C.P.	IGNITION							VALVES								
											Intake Valve Opens B-Before A-After			Operating Tappet Clearance (Hot unless noted)					
	Number of Cylinders, Bore and Stroke	Normal Oil Pressure, Lb. at M.P.H. or R.P.M.	Compression, psi at Cranking Speed	Distributor Rotation	Cam Angle (deg.)	Breaker Point Gap	Breaker Arm Tension (oz.)	Spark Occurs °TC B-Before A-After	Spark Occurs Flywheel Teeth °TC B-Before A-After	°TC	Flywheel Teeth °TC	Intake Tappet Clearance for Valve Timing	Intake	Exhaust	Seat Angle (deg.)	Face Angle (deg.)	Guide Clearance
FREIGHTLINER																			
Cum NHB-600	6-5½x6	55-2100	15.5-1	....	....	....	....	....	....	....	....	....	.014	.027	30	30	.202
BROCKWAY																			
38B	6-3¾x4⅝	55-65-2000	110-115	Ccw	39	.022	17-20	9B	½B	10B	....	a	.020	.022	d	f	h
40B	6-4x4⅝	55-65-2000	110-115	Ccw	39	.022	17-20	9B	½B	10B	....	a	.020	.022	d	f	h
41BD	6-4x4⅝	55-65-2000	110-115	Ccw	39	.022	17-20	4B	¼B	24B	....	b	.016	.024	d	f	h
42BD	6-4⅛x4⅞	55-65-2000	110-115	Ccw	39	.022	17-20	2B	¼B	19B	....	b	.016	.024	e	g	i
46BD, 46FD	6-4½x5⅝	55-65-2000	102-108	Ccw	39	.022	17-20	5B	½B	19B	....	c	.020	.024	d	f	i
48BD, 48FD	6-4¾x5⅝	55-65-2000	108-112	Ccw	39	.022	17-20	5B	½B	19B	....	c	.020	.024	d	f	

ENGINE	SPARK PLUGS				PISTONS, RINGS				VALVE SPRINGS				CAM	
									Valve Open		Valve Closed			
	Make	Type	Size	Gap	Piston Clearance	Oil Ring Side Clearance	Comp. Ring Side Clearance	Ring End Gap	Pressure (Av. lb.)	Length—in.	Pressure (Av. lb.)	Length—in.	End Play	Bushing Clearance
FREIGHTLINER														
Cum NHB-600	....	....	....	....	.012	.002	.002	(b)	114	1 11/16	82	2¼	.010	.002
BROCKWAY														
38B, 40B	CH	8 Com	18	.025	.005	.0017	.0027		119 ± 4	1.520	61 ± 3	1.875	k	l
41BD	CH	5 Com	18	.025	.002	.0017	.0027		119 ± 4	1.520	61 ± 3	1.875	k	l
42BD	CH	5 Com	18	.025	.003	.0017	.0037		136.7 ± 7	1.226	54.8 ± 3.5	1.670	k	l
46BD, 46FD, 48BD, 48FD	CH	5 Com	18	.025	.005	.002	.0037	.018-.013	I. 90 ± 4 O. 160 ± 7	1.367 1.617	38 ± 3 67 ± 4	1.867 2.117	k	l

NOTES

FREIGHTLINER

a—All models also available with other Cummins, Buda and Hall-Scott automotive engines.
b—Comp. ring: .025-.023-.023; oil ring, .018.
c—At 20 hr. rate.
d—Left, 3.5°; right, 3.0°.
e—Left, 2.7°; right, 3.2°.
f—Without filter.
g—Auxiliary transmission, 12 pt.
h—Transfer case, 12 pt.
i—Single axle.
j—Dual axle.
k—Front drive axle, 12 pt.
l—Delco-Remy No. 1106805 generator.
m—Delco-Remy No. 1108863 starter.
n—Developed @ 8000 rpm.
o—Straight mineral motor oil.
p—Straight mineral gear oil.
q—Multi-service hypoid gear lube (Mil-L-2105).
r—F-233 front drive axle: Multi-service 90.
s—Heavy duty motor oil (Mil-O-2014).
*—Fan belt data for Cummins No. S-1792 and Gates No. 151TG.

BROCKWAY

a—Intake, .022; Exhaust, .022.
b—Intake, .016; Exhaust, .022.
c—Intake, .022; Exhaust, .032.
d—Intake, 30; Exhaust, 45.
e—Intake, 15; Exhaust, 45.
f—Intake, 30; Exhaust, 44.
g—Intake, 15; Exhaust, 44.
h—Intake, .0036-.0020; Exhaust, .0055-.0043.
i—Intake, .0021-.0008; Exhaust, .0055-.0035.
j—.013-.008.
k—.009-.005.
l—.0025-.0015.
m—Front thrust washer.
n—½" bolts, 85-95; ⅝" bolts, 100-110.
o—2 batteries.
p—Each axle.
q—Straight mineral gear oil. Model T-98 trans., use S.A.E. 90 the year around.
EP—Extreme pressure lube.

ENGINE	TENSIONS		
	Cylinder Head (Lbs. ft.)	Main Bearings (Lbs. ft.)	Connecting Rod Bearings (Lbs. ft.)
FREIGHTLINER			
Cum NHB-600	450 Template Method		
BROCKWAY			
38B, 40B, 41BD	70-75	n	70-75
42BD	70-75	n	85-95
46BD, 46FD, 48BD, 48FD	100-110	n	85-95

MODEL — STANDARD ENGINE

MODEL	STANDARD ENGINE
FREIGHTLINER	
All models	Cum NHB-600 (a)
BROCKWAY	
88WHX	38B (Con M6290)
128WX, 146WX	40B (Con M6330)
147W, 147WL	41BD (Con M6363)
148WD, 148SLD	42BD (Con B6427)
155W, 153WD, 153SQ	42BD (Con B6427)
254W, 260LD	46BD (Con R6513)
255W, 260WD, 260WLD, 260SQ, 260SF	48BD (Con R6572)
256W	46FD (Con R6513)
258W	48FD (Con R6572)

ENGINE — GENERATOR — STARTER — RODS, PINS — C. SHAFT

ENGINE	GENERATOR			STARTER						RODS, PINS			C. SHAFT		
	Brush Spring Tension	Max. Charge Rate	Voltage	Brush Spring Tension	Amp. (No Load)	Voltage (No Load)	Torque (Lock)	Amp. (Lock)	Voltage (Lock)	Pin Clearance	Rod Bearing Clearance	Rod Side Clearance	End Play	Main Bearing Clearance	End Thrust Carried on
FREIGHTLINER	(l)			(m)											
Cum NHB-600	20	50	12	36-40	100n	23n	32	525	3	.0025	.003	.010	.008-.010	.003	....
BROCKWAY															
38B, 40B	64-68	32	6	42-53	60	5.0	9.2	390	2.0	.0004	.0019	.008	.006	.0026	m
41BD	64-68	32	6	42-53	65	5.0	10.3	370	2.0	.0004	.0019	.008	.006	.0026	m
42BD	64-68	32	6	42-53	65	5.0	10.3	370	2.0	.0004	.002	.008	.006	.0026	m
42BD (on 155W)	23-26	50	6	42-53	65	5.0	10.3	370	2.0	.0004	.002	.008	.006	.0026	m
46BD, 46FD	71-76	50	6	42-53	65	5.0	10.3	370	2.0	.0005	.002	.0085	.0075	.0034	m
48BD, 48FD	71-76	55	12	42-53	90	10.0	26.0	750	4.0	.0005	.002	.0085	.0075	.0034	m

MODEL — ENGINE — BATTERY — FRONT END — CAPACITIES — FAN BELT

MODEL	ENGINE	BATTERY					FRONT END				CAPACITIES				FAN BELT		
		Amp. Hour Capacity	Number of Plates	Terminal Grounded	S.A.E. Group Number	A.A.B.M. Group Number	Toe-In (In.)	Camber (Deg.)	Caster (Deg.)	King Pin Slant (Deg.)	Engine Oil (Qt.)	Transmission Oil (Pt.)	Rear Axle Oil (Pt.)	Cooling System Capacity (Qt.)	Circumference (In.)	Width (In.)	Angle of "V" (Deg.)
FREIGHTLINER																	
WF-42T	NHB-600	153c	19	Pos	4H	4CS	1/16–3/16	1	(d)	5	28f	16	35i	60	41 5/16	11/16	42
WF-64	NHB-600	153c	19	Pos	4H	4CS	1/16–3/16	1	(e)	5	28f	16g	64j	60	41 5/16	11/16	42
WF-64T	NHB-600	153c	19	Pos	4H	4CS	1/16–3/16	1	(d)	5	28f	32	64j	60	41 5/16	11/16	42
WF-5842T	NHB-600	153c	19	Pos	4H	4CS	1/16–3/16	1	(d)	5	28f	16	35i	60	41 5/16	11/16	42
WF-5844T	NHB-600	153c	19	Pos	4H	4CS	1/16–3/16	1	(d)	0	28f	32h	37k	60	41 5/16	11/16	42
WF-6542T	NHB-600	153c	19	Pos	4H	4CS	1/16–3/16	1	(d)	5	28f	16	35i	60	41 5/16	11/16	42
WF-6564	NHB-600	153c	19	Pos	4H	4CS	1/16–3/16	1	(e)	5	28f	16g	64j	60	41 5/16	11/16	42
WF-7564T	NHB-600	153c	19	Pos	4H	4CS	1/16–3/16	1	(d)	5	28f	32	64j	60	41 5/16	11/16	42
BROCKWAY																	
88WHX	38B	120	17	Pos	....	2	1/16–1/8	1	1/2–1 1/2	8	7	11	18	25	51 1/4	7/8	42
128WX	40B	120	17	Pos	....	2	1/16–1/8	1	1/2–1 1/2	5 1/2	7	11	20	25	51 1/4	7/8	42
146WX	40B	120	17	Pos	....	2	1/16–1/8	1	1/2–1 1/2	5 1/2	7	11	31	25	51 1/4	7/8	42
147W, 147WL	41BD	120	17	Pos	....	2	1/16–1/8	1	1/2–1 1/2	5 1/2	7	11	31	26	51 1/4	7/8	42
148WD	42BD	120	17	Pos	....	2	1/16–1/8	1	1/2–1 1/2	5 1/2	8	16	31	31	53 3/4	3/4	38
148SLD	42BD	120	17	Pos	....	2	1/16–1/8	1	1/2–1 1/2	5 1/2	8	16	20p	31	53 3/4	3/4	38
153WD	42BD	120	17	Pos	....	2	1/16–1/8	1	1/2–1 1/2	0	8	16	37	33	53 3/4	3/4	38
153SQ	42BD	120	17	Pos	....	2	1/16–1/8	1	1/2–1 1/2	0	8	16	23p	33	53 3/4	3/4	38
155W	42BD	120	17	Pos	....	2	1/16–1/8	1	1/2–1 1/2	5 1/2	8	16	20	31	53 3/4	3/4	38
254W, 256W	46BD, 46FD	150	19	Pos	....	4	1/16–1/8	1	1/2–1 1/2	0	14	24	20	40	62 1/4	7/8	38
260LD	46BD	150	19	Pos	....	4	1/16–1/8	1	1/2–1 1/2	8	14	24	39	40	62 1/4	7/8	38
255W, 258W	48BD, 48FD	120	17e	Pos	....	4	1/16–1/8	1	1/2–1 1/2	0	14	24	35	40	62 1/4	7/8	38
260WD	48BD	120	17e	Pos	....	4	1/16–1/8	1	1/2–1 1/2	0	14	24	32	40	62 1/4	7/8	38
260WLD	48BD	120	17e	Pos	....	4	1/16–1/8	1	1/2–1 1/2	8	14	24	39	40	62 1/4	7/8	38
260SQ	48BD	120	17e	Pos	....	4	1/16–1/8	1	1/2–1 1/2	8	14	24	23p	40	62 1/4	7/8	38
260SF	48BD	120	17e	Pos	....	4	1/16–1/8	1	1/2–1 1/2	8	14	24	28p	40	62 1/4	7/8	38

LUBRICATION

MODEL WITH STANDARD ENGINE	Engine		Transmission		Rear Axle		Steering Gear	
	Viscosity and Temperature Range		Summer	Winter	Summer	Winter	Summer	Winter
FREIGHTLINER								
WF-42T, WF-6542T	Summer 30e	Winter 20e	50e	50e	140q	90q	90p	90p
WF-64, WF-6564	Summer 30e	Winter 20e	50e	50e	140p	90p	90p	90p
WF-64T, WF-7564T	Summer 30e	Winter 20e	140p	90p	140p	90p	90p	90p
WF-5842T	Summer 30e	Winter 20e	50e	50e	140q	90q	90p	90p
WF-5844T	Summer 30e	Winter 20e	140p	90p	140qr	90q	90p	90p
BROCKWAY								
All	30 Summer	30 Winter	140q	90	EP90	EP90	140q	140q

TRUCK DATA

CHEVROLET

ENGINE	SIZE	OIL	C.P.	IGNITION						VALVES								
	Number of Cylinders, Bore and Stroke	Normal Oil Pressure, Lb. at M.P.H. or R.P.M.	Compression, psi at Cranking Speed	Distributor Rotation	Cam Angle (deg.)	Breaker Point Gap	Breaker Arm Tension (oz.)	Spark Occurs °TC B-Before A-After	Spark Occurs Flywheel Teeth °TC B-Before A-After	Intake Valve Opens B-Before A-After °TC	Flywheel Teeth °TC	Intake Tappet Clearance for Valve Timing	Operating Tappet Clearance (Hot unless noted) Intake	Exhaust	Seat Angle (deg.)	Face Angle (deg.)	Guide Clearance
Thr. Mas. 235, Thr. Mas. Spec.	6-3.563x 3.938	35 (c)	130	Cw	26-33	.016-.021	19-23	TDC		11½B			.006	.018	E. 46 I. 31	45 30	.001-.0021
Thr. Mas. H. D.	6-3.563x 3.938	35 (c)	130	Cw	26-33	.016-.021	19-23	TDC		11½B			.006	.020	E. 46 I. 31	45 30	.001-.0021
J. Mas. 261	6-3¼x 3.938	30 (d)	130	Cw	26-33	.016-.021	19-23	TDC		11½B			.006	.020	E. 46 I. 31	45 30	.001-.0027
Trd. Mas. 265	8-3¼x3	30 (d)	160	Cw	26-33	.016-.021	19-23	4B		18B					E. 46 I. 46	45 45	(e)
Tsk. Mas. 265, Ld. Mas. 322	8-4x3.2	30 (d)	160	Cw	26-33	.016-.021	19-23	4B		18B					E. 46 I. 46	45 45	(e)

ENGINE	SPARK PLUGS				PISTONS, RINGS				VALVE SPRINGS				CAM	
									Valve Open		Valve Closed			
	Make	Type	Size	Gap	Piston Clearance	Oil Ring Side Clearance	Comp. Ring Side Clearance	Ring End Gap	Pressure (Av. lb.)	Length—in.	Pressure (Av. lb.)	Length—in.	End Play	Bushing Clearance
Thriftmaster Models	AC	44-5	14	.033-.038	(f) .0005-.0011	0-.009	.0020-.0035	.007-.017	196-208	1.462	74-82	1.858	.003-.007	.0010-.0030
J. Mas 261	AC	43-5	14	.033-.038	.0005-.0011	0-.008	.0020-.0035	(g)	196-208	1.462	74-82	1.858	.003-.007	.0010-.0030
Trd. Mas., Tsk. Mas. 265	AC	43-5	14	.033-.038	.0007-.0010	.0006-.0084	.0012-.0032	(h)	155-165	1.366	76-84	1.696	.....	.0015-.0035
Ld. Mas. 322	AC	43-5	14	.033-.038	.0017	.....	.....	(i)	155-165	1.366	76-84	1.696	.004-.008	.0015-.0035

NOTES

a—With dual exhaust.
b—With 4-barrel carburetor.
c—At 1170-1240 rpm.
d—At 1170-1200 rpm.
e—Exhaust, .0015-.0032; Intake, .0010-.0027.
f—Skirt clearance in cylinder bore.
g—Upper compression, .010-.020; Lower compression, .007-.017; Oil, .015-.055.
h—Upper compression, .008-.016; Lower compression, .009-.018; Oil, .015-.055.
i—Upper and lower compression, .010-.020; Oil, .015-.035.
j—1 and 2, .0008-.0024; 3 and 4, .001-.0026.
k—5½ with standard engine; 4½ with optional Trademaster engine.
l—Multi-purpose gear lube or straight mineral oil. Use SAE 80 in extremely cold weather.
m—SAE 80 may be used in extremely cold weather.

ENGINE	TENSIONS		
	Cylinder Head (Lbs. ft.)	Main Bearings (Lbs. ft.)	Connecting Rod Bearings (Lbs. ft.)
Thr. Mas., J. Mas.	90-95	100-110	35-45
Trd. Mas., Tsk. Mas.	60-70	60-70	30-45

MODEL	ENGINE	
	STANDARD	OPTIONAL
3000 Series	Th. Mas.-6 (235 cu. in.)	Trd. Mas. V-8 (265 cu. in.), Tsk. Mas. V-8 (a, b)
4000 Series	Th. Mas.-6 (235 cu. in.)	Trd. Mas. V-8 (265 cu. in.), Tsk. Mas. V-8 (a, b), Th. Mas.-6 (H. D. 235 cu. in.)
34-35-3700 Fwd. control	Th. Mas. Spec.-6 (235 cu. in., updraft)	Tsk. Mas. V-8 (265 cu. in.) (a, b)
5000 Series	Tsk. Mas. V-8 (322 cu. in.)	
6000 Series	Th. Mas.-6 (H. D. 235 cu. in.)	J Mas. (261 cu. in.), Tsk. Mas. V-8 (265 cu. in.)
7000, 8000 Series	Tsk. Mas. V-8 (265 cu. in.)	Tsk. Mas. V-8 (265 cu. in.) (a, b)
9000, 10000 Series	Ld. Mas. V-8 (322 cu. in.)	Ld. Mas. V-8 (b)

ENGINE	GENERATOR			STARTER						RODS, PINS			C. SHAFT		
	Brush Spring Tension	Max. Charge Rate	Voltage	Brush Spring Tension	Amp. (No Load)	Voltage (No Load)	Torque (Lock)	Amp. (Lock)	Voltage (Lock)	Pin Clearance	Rod Bearing Clearance	Rod Side Clearance	End Play	Main Bearing Clearance	End Thrust Carried on
Thr. Mas., J. Mas.	24-32		12-15	30	65	10.4	12	415	5.8	.00015- .00025	.0007- .0028	.005- .010	.0035- .0095	(j)	No. 3
Trd. Mas., Tsk. Mas.	24-32	25	12-15	30	65	10.4	12	415	5.8	.00011- .00029	.0007- .0028	.008- .014	.002- .006	.002- .006	No. 5
Ld. Mas.	24-32	30	12-15	.....	95	10.1	.....	470	5.4	.0002- .0006	.0002- .00023	.005- .012	.004- .008	.004- .008	.....

MODEL	ENGINE	BATTERY					FRONT END				CAPACITIES				FAN BELT		
		Amp. Hour Capacity	Number of Plates	Terminal Grounded	S.A.E. Group Number	A.A.B.M. Group Number	Toe-In (In.)	Camber (Deg.)	Caster (Deg.)	King Pin Slant (Deg.)	Engine Oil (Qt.)	Tranamission Oil (Pt.)	Rear Axle Oil (Pt.)	Cooling System Capacity (Qt.)	Circumference (In.)	Width (In.)	Angle of "V" (Deg.)
With Standard Equipment																	
31-3200	235	53	54	Neg	.....	.....	.13-.22	.31-1½	1½	6.16-8.16	(k)	2	6½	17	41.50	.53	37-44
3600	235	53	54	Neg	.....	.....	⅛-.31	.31-1½	1½	6.16-8.16	(k)	2	6½	17	41.50	.50	37-44
3800	235	53	54	Neg	.....	.....	⅛-.31	.31-1½	2⅛	6.16-8.16	(k)	2	6½	17½	41.50	.50	37-44
34-35-3700	235	53	54	Neg	.....	.....	⅛-.31	.31-1½	2.0	6.16-8.16	(k)	2	6½	17	41.50	.50	37-44
4000	235, 261, 265	53	54	Neg	.....	.....	⅛-.31	.31-1½	2.0	6.16-8.16	(k)	6¼	14	17½	42.33	.50	37-44
5000	265	53	54	Neg	.....	.....	⅛-.31	.31-1½	2.0	6.16-8.16	(k)	6¼	14	18	56.86	.50	37-44
6000	235, 261	53	54	Neg	.....	.....	⅛-.31	.31-1½	2½	4	5½	6¼	14	17½	42.33	.50	37-44
7000	265	53	54	Neg	.....	.....	⅛-.31	.31-1½	1⅝	4	5½	6¼	19½	23	56.86	.50	37-44
8000	265	53	54	Neg	.....	.....	⅛-.31	.31-1½	2½	4	5½	6¼	19½	23	56.86	.50	37-44
9000	322	53	54	Neg	.....	.....	⅛-.31	.31-1½	1¾	4	6	12	17	21½	57.50	.380	37-44
10000	322	53	54	Neg	.....	.....	⅛-.31	.31-1½	2½	4	6	12	17	21½	57.50	.380	37-44
School buses 45-67-68-88, 10802	.....	72	66	Neg	.....	.....	⅛-.31	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

MODEL WITH STANDARD ENGINE	LUBRICATION						
	Engine	Tranamission		Rear Axle		Steering Gear	
	Viscosity and Temperature Range	Summer	Winter	Summer	Winter	Summer	Winter
All	20 or 20W above 32°, 20W @ 10° to −10°, 5W below −10°	90(l)	90(l)	90(m)	90(m)	90(m)	90(m)

TRUCK DATA

DIAMOND T

ENGINE	SIZE	OIL	C.P.	IGNITION						VALVES								
	Number of Cylinders, Bore and Stroke	Normal Oil Pressure, Lb. at M.P.H. or R.P.M.	Compression, psi at Cranking Speed	Distributor Rotation	Cam Angle (deg.)	Breaker Point Gap	Breaker Arm Tension (oz.)	Spark Occurs °TC B-Before A-After	Spark Occurs Flywheel Teeth °TC B-Before A-After	Intake Valve Opens B-Before A-After °TC	Intake Valve Opens B-Before A-After Flywheel Teeth °TC	Intake Tappet Clearance for Valve Timing	Operating Tappet Clearance (Hot unless noted) Intake	Operating Tappet Clearance (Hot unless noted) Exhaust	Seat Angle (deg.)	Face Angle (deg.)	Guide Clearance
DT252	6-3 1/2 x4 3/8	(a)	On all cylinders 100—130 ± 5	Cw	34	.022	19			12 1/2 B		.0225	.012	.016	(b)	(d)	(f)
K6271	6-3 1/2 x4 3/8	40–2000		Cw	39	.020	18.5	8B		10B		.022	.017	.022	(c)	(e)	(g)
K6330	6-4x4 3/8	40–2000		Cw	39	.020	18.5	8B		10B		.022	.017	.022	(c)	(e)	(g)
XL372	6-4 3/8 x4 1/2	45–1500		Cw	34	.022	19	5B		16B		.023	.020–.022	.020–.022	(c)	(c)	(h)
K6363	6-4x4 1/2	40–2000		Cw	39	.020	18.5	5B		10B		.022	.017	.022	(c)	(e)	(g)
XL406	6-4 3/8 x4 1/2	45–1500		Cw	34	.022	19	5B		16B		.023	.020–.022	.020–.022	(c)	(c)	(h)
T6427	6-4 1/8 x4 7/8	45–2600		Cw	39	.020	18.5	10B		14B		.022	.017	.022	(c)	(e)	(g)
XL450	6-4 5/8 x5	45–1500		Cw	34	.022	19	5B		16B		.023	.020–.022	.020–.022	(c)	(c)	(h)
XL501	6-4 1/2 x5 1/4	45–1500		Cw	34	.022	19	2B		16B		.023	.020–.022	.020–.022	(c)	(c)	(h)
R6572	6-4 3/4 x5 3/8	55 Max		Ccw	39	.020	18.5	5B		17B		.024	.020	.024	(b)	(b)	(g)

All Cummins Diesels See Cummins engines page 104

ENGINE	SPARK PLUGS				PISTONS, RINGS				VALVE SPRINGS				CAM	
	Make	Type	Size	Gap	Piston Clearance	Oil Ring Side Clearance	Comp. Ring Side Clearance	Ring End Gap	Valve Open Pressure (Av. lb.)	Valve Open Length—In.	Valve Closed Pressure (Av. lb.)	Valve Closed Length—In.	End Play	Bushing Clearance
DT252	CH	J7	14	.030	.002	.00425	.00425	.00125	144–154	1 7/8	53–58	1 11/16	.005	....
K6271	AL	AT6	14	.027	.005	(i)	.0038	.020	126–0	1 7/8—0	....	....	.007	....
K6330, K6363	AL	AT6	14	.027	.005	(i)	.0038	.030	126–0	1 7/8—0	....	....	.007	....
XL series	CH	J6	14	.027	.003	.0025	(k)	.030	137–0	1.706–0	....	....	.0055	....
T6427	CH	6 Com	18	.027	.005	.002	.0038	.020	68–0	1 7/8—0	....	....	.007	....
R6572	CH	5 Com	18	.027	.005	.0025	(j)	.015	70–0	2 1/4	....	....	....	....

NOTES

a—12 lb. @ idle, 30–58 @ high speed.
b—Intake 30, exhaust, 45.
c—Intake 15, exhaust 45.
d—Intake 29, exhaust 44.
e—Intake 15, exhaust 44.
f—Intake .002–.004, exhaust .002–.004.
g—Intake .001–.002, exhaust .003–.005.
h—Intake .0015–.004, exhaust .002–.0045.
i—Fourth ring, .001–.0025; bottom ring, .0015–.0035.
j—Top, .005–.0065; 2nd and 3rd, .002–.004.
k—Top, .0040–.0055; 2nd, .0020–.0035.
l—In piston: hand push @ 140°F—.0002 max. In rod bushing: thumb push @ 70°F.
m—In piston: Light push @ 160°F. In rod bushing: .0002–.0006.
n—In piston: .0000–.0002. In rod: .0005–.0007.
o—Full floating pins, hand push fit in piston.
p—In piston: Light push @ 160°F. In rod bushing: .0004.
q—1/2-13 Thread: 100–110. 5/16–13: 130–140.
r—Front and int., 123. Center and rear, 105.
s—Clark Spiral Bevel—EP Gear Oil Summer, SAE 140; Winter, SAE 90. Timken Spiral Bevel and S.B. Double Reduction—Gear Oil SAE 140. Eaton 2-Speed and Hypoid—M.P. Gear Lube SAE 90. Timken Hypoid, D.R. Hypoid and 2-Speed Hypoid—M.P. Gear Lube SAE 140. Timken Worm Drive—Gear Oil SAE 140. Clark Hypoid—Hypoid Gear Oil. SAE 90. **Note:** When temperatures are consistently above 100 deg., use an SAE gear oil in Eaton axles and Clark hypoid axles.
t—Front and inter., 123. Center and rear, 105.
u—S.A.E. 50 in hot climate, high speed operations.
*—SAE 50 straight mineral oil in Spicer transmissions only. Gear oil in others.
†—Optional generator available.
*—Six wheelers caster 1 1/2°.

ENGINE	TENSIONS		
	Cylinder Head (Lbs. ft.)	Main Bearings (Lbs. ft.)	Connecting Rod Bearings (Lbs. ft.)
DT252	65–70	65–70	82–86
K Series	85–95	100–110	70–75
XL Series	100–110	100–110	75–85
T6427	130–140	(q)	100–110
R6572	100–110	(q)	100–110

MODEL	STANDARD ENGINE
323, 323C	DT 252
422, 422C	K6271
522, 522C	K6330
532	XL372
622, 622C	K6363
630	XL406
660, 720, 720C	T6427
662, 730	XL450
723JT, 723CJT	JT6B

MODEL	STANDARD ENGINE
723	JBS
830, 830C	XL501
920, 920C	R6572
921, 921B, 921F	HB600
921R, 921BR, 921FR	HRBB600
921N, 921BN, 921FN	NHB600
921C, 921CR, 921CN	HB600, HRBB600, NHB600
950, 950S, 950RS	NHB600, NHBS600, NHRBS600

ENGINE	GENERATOR			STARTER						RODS, PINS			C. SHAFT		
	Brush Spring Tension	Max. Charge Rate	Voltage	Brush Spring Tension	Amp. (No Load)	Voltage (No Load)	Torque (Lock)	Amp. (Lock)	Voltage (Lock)	Pin Clearance	Rod Bearing Clearance	Rod Side Clearance	End Play	Main Bearing Clearance	End Thrust Carried an
DT252	28	45	6	24–36	80	5.7	15	600	3	l	.0013	.010	.005	.0022	....
K6271†, K6330†, K6363	44	40	6	42–53	60	5	9.2	390	2	m	.002	.008	.004	.0025	....
XL372†	28	45	6	24–28	70	5	22	600	3	n	.0025	.010	.010	.0028	....
XL406†	28	45	6	36–40	70	5.7	35	600	3	n	.0025	.010	.010	.0028	....
T6427†	34	50	6	42–53	65	5	10.3	370	2	m	.002	.008	.0065	.0025	....
XL450	20	50	12	36–40	65	11.3	30	675	4	n	.0025	.010	.010	.0028	....
XL501	20	50	12	36–40	65	11.3	30	675	4	n	.0025	.010	.010	.0028	....
R6572	73.5	55	12	42–53	80	10	26	750	4	p	.003	.008	.005	.003	....
Cum JBS, JT	20	50	12	36–40	115	11.6	20	570	2.3	See Cummins engines			page 104		
Cum HB, HRBB, NHB	20	50	12	36–40	100	23	32	525	3						

MODEL	ENGINE	BATTERY					FRONT END				CAPACITIES				FAN BELT		
		Amp. Hour Capacity	Number of Plates	Terminal Grounded	S.A.E. Group Number	A.A.B.M. Group Number	Toe-In (In.)	Camber (Deg.)	Caster (Deg.)	King Pin Slant (Deg.)	Engine Oil (Qt.)	Transmission Oil (Pt.)	Rear Axle Oil (Pt.)	Cooling System Capacity (Qt.)	Circumference (In.)	Width (In.)	Angle of "V" (Deg.)
323	DT252	100	15	Pos	2E	2	1/8	1	1	8	6	6	11	26	....	....	....
323C	DT252	100	15	Pos	2E	2	1/8	1	1	5 1/2	6	6	11	28	....	....	....
422	K6271	120	17	Pos	2H	....	1/8	1	1	8	7	4 1/2	20	28	....	....	....
422C, 422 (6 whlr.)	K6271	120	17	Pos	2H	....	1/8	1	1°	5 1/2	7	4 1/2	20	28	....	....	....
522	K6330	150	19	Pos	4H	....	1/8	1	1	8	7	4 1/2	20	32	....	....	....
522C, 522 (6 whlr.)	K6330	150	19	Pos	4H	....	1/8	1	1°	5 1/2	7	4 1/2	20	32	....	....	....
532, 532C	XL372	150	19	Pos	4H	....	1/8	1	1	8	9	18	20	....	....	....	....
622	K6363	150	19	Pos	4H	4	1/8	1	1	5 1/2	7	12	22	32	....	....	....
622C, 622 (6 whlr.)	K6363	150	19	Pos	4H	4	1/8	1	1°	5 1/2	7	12	22	35	....	....	....
630, 630 (6 whlr.)	XL406	150	19	Pos	4H	....	1/8	1	1°	4	9	18	22	....	....	....	....
630C, 630C (6 whlr.)	XL406	150	19	Pos	4H	....	1/8	1	1°	5 1/2	9	18	22	....	....	....	....
660, 720, 720 (6 whlr.)	T6427	168	21	Pos	4H	....	1/8	1	1°	5 1/2	10	18	22	38	....	....	....
662, 730, 730 (6 whlr.), 730C, 730C (6 whlr.)	XL450	150	19	Pos	4H	....	1/8	1	1°	5 1/2	9	18	22	....	....	....	....
720C, 720C (6 whlr.)	T6427	168	21	Pos	5H	5D	1/8	1	1	5 1/2	10	18	22	32	....	....	....
723, 723 (6 whlr.), 723C	JBS	168	21	Pos	5H	5D	1/8	1	1°	5 1/2	16	18	20	32	....	....	....
723JT, 723JT (6 whlr.), 723CJT, 723CJT (6 whlr.)	JT6B	168	21	Pos	5H	5D	1/8	1	1°	5 1/2	16	18	20	32	....	....	....
830, 830 (6 whlr.), 830C, 830C (6 whlr.)	XL501	150	19	Pos	4H	....	1/8	1	1°	5 1/2	9	24	22	....	....	....	....
920, 920 (6 whlr.)	R6572	168	21	Pos	5H	7D	1/8	1	1°	5 1/2	18	15	30	40	....	....	....
921, 921 (6 whlr.), 921B, 921F	HB600	168	21	Pos	5H	7D	1/8	1	1°	5 1/2	28	15	30	42	....	....	....
921R, 921BR, 921FR	HRB600, HRBB600	168	21	Pos	5H	7D	1/8	1	1	5 1/2	28	44	30	42	....	....	....
921N, 921BN, 921FN	NHB600	168	21	Pos	5H	7D	1/8	1	1	5 1/2	28	44	30	40	....	....	....
921C, 921C (6 whlr.)	HB600	168	21	Pos	5H	7D	1/8	1	1°	0	28	15	30	42	....	....	....
950, 950 (6 whlr.)	NHB600, NHBS600, NHRBS600	200	25	Pos	....	7D	1/8	1	1°	5 1/2	28	44	30	56	....	....	....

LUBRICATION

MODEL WITH STANDARD ENGINE	Engine			Transmission		Rear Axle		Steering Gear	
	Viscosity and Temperature Range			Summer	Winter	Summer	Winter	Summer	Winter
DT252	30 above 90°	20 @ 90°–32°	10 @ 32°–10°	140GO	90GO	(s)	(s)	EPGO 140	140
	10W below 10°								
K6271, K6330, K6363 T6427, R6572, TDX8 Cummins Diesels	40 above 90°	30 @ 90°–32°	20 @ 32°–10°	140GO*	90GO*	(s)	(s)	140	140
	20W and 10W below 10°								
	30 above 90°	20 @ 90°–32°	20 and 10 @ 32°–10°	140GO*	90GO*	(s)	(s)	140	140
	10 below 10°								
XL Series	40 above 90°	40 @ 90°–32°	20W @ 32°–10	140GO*	90GO*	(s)	(s)	140	140
	10W below 10°								

TRUCK DATA

DODGE

MODEL	ENGINE	BATTERY					FRONT END				CAPACITIES				FAN BELT		
		Amp. Hour Capacity	Number of Plates	Terminal Grounded	S.A.E. Group Number	A.A.B.M. Group Number	Toe-In (In.)	Camber (Deg.)	Caster (Deg.)	King Pin Slant (Deg.)	Engine Oil (Qt.)	Transmission Oil (Pt.)	Rear Axle Oil (Pt.)	Cooling System Capacity (Qt.)	Circumference (In.)	Width (In.)	Angle of "V" (Deg.)
BEFORE MARCH, 1956								Note b			Note c						
C-3-BL6, C-3-B6	TX-334, T-334	100	15	Pos			0-1/8	1 1/2	3	4	5	2 3/4	3 3/4	15			
C-3-B8	VT-334	100	15	Pos			0-1/8	1 1/2	3	4	5	2 3/4	3 3/4	19			
C-3-C6, C-3-CN6	T-336, T-361	100	15	Pos			0-1/8	1 1/2	2 1/4	4	5	3 1/2	3 3/4	15			
C-3-C8	VT-336	100	15	Pos			0-1/8	1 1/2	2 1/4	4	5	3 1/2	3 3/4	19			
C-3-D6, C-3-DN6	T-338, T-362	100	15	Pos			0-1/8	1 1/2	2 1/4	4	5	3 1/2	5 1/2	15			
C-3-D8	VT-338	100	15	Pos			0-1/8	1 1/2	2 1/4	4	5	3 1/2	5 1/2	20			
C-3-DW6	T-137	100	15	Pos			0-1/8	1 1/2	1/2	8	5	3 1/2	6	20			
C-3-DU6	T-164	100	15	Pos			0-1/8	1 1/2	1 1/2	4	5	3 1/2	5 1/2	17			
C-3-EU6	T-165	100	15	Pos			0-1/8	2	1 1/2	7	5	6	6	17			
C-3-F6, C-3-FN6	T-342, T-364	100	15	Pos			0-1/8	2	1 1/2	7	5	6	11	15 1/2			
C-3-F8	VT-342	100	15	Pos			0-1/8	2	1 1/2	7	5	6	11	20			
C-3-G6	TX-342	120	17	Pos			0-1/8	2	1 1/2	7	5	5 1/2	11	18			
C-3-G8	VTX-342	100	15	Pos			0-1/8	2	1 1/2	7	5	5 1/2	11	21		1/4 d	
C-3-H6, C-3-HM6	T-344, T-356	120	17	Pos			0-1/8	2	1	7	5	5 1/2	11	18		1/4 d	
C-3-H8	VT-344	100	15	Pos			0-1/8	2	1	7	5	5 1/2	11	21		1/4 d	
C-3-HH6, C-3-HHM6	TX-344, TX-356	120	17	Pos			0-1/8	2	1	7	5	5 1/2	10	20			
C-3-HH8	VTX-344	100	15	Pos			0-1/8	2	1	7	5	5 1/2	10	23		1/4 d	
C-3-J6	T-346	120	17	Pos			0-1/8	2	1	7	5	7	10	20			
C-3-JM6	T-358	120	17	Pos			0-1/8	2	1 1/4	7	5	7	10	20			
C-3-J8	VT-346	100	15	Pos			0-1/8	2	1	7	5	7	10	23		1/4 d	
C-3-K6	TX-346	120	17	Pos			0-1/8	2	1	7	5	9.8	20	20			
C-3-KMA6	TX-358	120	17	Pos			0-1/8	2	1/4	7	5	9.6	20	20			
C-3-K8	VTX-346	100	15	Pos			0-1/8	2	1	7	5	9.6	20	23		1/4 d	
C-3-R8	VT-348	135	19	Pos			0-1/8	2	2	7	8	9.6	20	29		1/4 d	
C-3-T8	VT-350	135	19	Pos			0-1/8	1	2 1/4	8	8	9.8	23	29		1/4 d	
C-3-V8	VTX-350	135	19	Pos			0-1/8	1	2 1/2	5 1/2	8	9.8	31	29		1/4 d	
C-3-Y6, YX6	T-352	155	23	Pos			0-1/8	1	3 1/4	5 1/2	5	16	31	34		1/4 d	
AFTER MARCH, 1956																	
C-3-B (6 and 8)	434	50	9	Neg			0-1/8	1 1/2	3	4							
C-3-C (6 and 8)	436	50	9	Neg			0-1/8	1 1/2	2 1/4	4							
C-3-D (6 and 8)	438	50	9	Neg			0-1/8	1 1/2	2 1/2	4							
C-3-G6	T-442	60	11	Neg			0-1/8	2	1 1/2	7							
C-3-G8	VT-442	50	9	Neg			0-1/8	2	1 1/2	7							
C-3-H6	T-444	60	11	Neg			0-1/8	2	1	7							
C-3-H8	VT-444	50	9	Neg			0-1/8	2	1	7							
C-3-HH6	T-446	60	11	Neg			0-1/8	2	1/4	7							
C-3-HH8	VT-446	50	9	Neg			0-1/8	2	1/4	7							
C-3-K8	VT-448	60	11	Neg			0-1/8	2	1/4	7							
C-3-T8	VT-450	70	13	Neg			0-1/8	1	2 1/4	8							
C-3-Y8	VT-452	70	13	Neg			0-1/8	1	3 1/4	5 1/2							
C-3-HM8	VT-456	50	9	Neg			0-1/8	2	1	7							
C-3-HHM8	VT-458	50	9	Neg			0-1/8	2	1/4	7							
C-3-KM8	VT-460	60	9	Neg			0-1/8	2	1/4	7							
C-3-PW6	T-137	50	9	Neg			0-1/8	1 1/2	1/2	8							
C-3-HW6	T-404	60	11	Neg			1/8	3/4	2 1/2	8							
C-3-HW8	VT-404	50	9	Neg			1/8	3/4	2 1/2	8							
C-3-DN (6 and 8)	418	50	9	Neg			0	1 1/2	2 1/2	4							
C-3-FN (6 and 8)	422	50	9	Neg			0-1/8	2	1 1/2	7							
C-3-KX8	VT-462	60	11	Neg			0-1/8	1	2 1/4	8							
C-3-TX8	VT-466	70	13	Neg			0-1/8	1	2 1/4	8							
C-3-YX8	VT-468	70	13	Neg			0-1/8	1	3 1/4	5 1/2							
C-3-GS6	TS-442	60	11	Neg			0-1/8	2	1 1/2	7							
C-3-GS8	VTS-442	60	11	Neg			0-1/8	2	1 1/2	7							
C-3-HS6	TS-444	60	11	Neg			0-1/8	2	1	7							
C-3-HS8	VTS-444	60	11	Neg			0-1/8	2	1	7							
C-3-HHS6	TS-446	60	11	Neg			0-1/8	2	1/4	7							
C-3-HHS8	VTS-446	60	11	Neg			0-1/8	2	1/4	7							
C-3-KS8	VTS-448	70	13	Neg			0-1/8	2	1/4	7							

NOTES

a—At 1500 rpm.
b—At no load.
c—Less filter.
d—Two belts.
e—At 150 rpm.
f—At 170 rpm.

MODEL	ENGINE	
BEFORE MARCH, 1956	STANDARD	OPTIONAL
C-3-BL6	TX-334	
C-3-B (6 & 8)	T-334(6)	VT-334(8)
C-3-C (6 & 8)	T-336(6)	VT-336(8)
C-3-CN6	T-361	
C-3-D (6 & 8)	T-338 (6)	VT-338(8)
C-3-DN6	T362	
C-3-PW6	T-137	
C-3-DU6	T-164	
C-3-EU6	T-165	
C-3-F (6 & 8)	T-342(6)	VT-342(8)
C-3-FN6	T-364	
C-3-G (6 & 8)	TX-342	VTX-342(8)
C-3-H (6 & 8)	T-344	VT-344(8)
C-3-HM6	T-356	
C-3-HH (6 & 8)	TX-344(6)	VTX-344(8)
C-3-HHM6	TX-356	
C-3-J (6 & 8)	T-346(6)	VT-346(8)
C-3-JM6	T-358	
C-3-K (6 & 8)	TX-346(6)	VTX-346(8)
C-3-KMA6	TX-358	
C-3-R8	VT-348	
C-3-T8	VT-350	
C-3-V8	VTX-350	
C-3-Y8	T-352	
C-3-YX6	T-353	
(S.B.) C-3-FS (6 & 8)	TS-342(6)	VTS-342(8)
(S.B.) C-3-HS (6 & 8)	TS-344(6)	VTS-344(8)

MODEL	ENGINE	
Continued	STANDARD	OPTIONAL
(S.B.) C-3-JS (6 & 8)	TS-346(6)	VTS-346(8)
(S.B.) C-3-RS8	VTS-348	
AFTER MARCH, 1956		
C-3-B	T-434 (6)	VT-434 (8)
C-3-C	T-436 (6)	VT-436 (8)
C-3-D	T-438 (6)	VT-438 (8)
C-3-G	T-442 (6)	VT-442 (8)
C-3-H	T-444 (6)	VT-444 (8)
C-3-HH	T-446 (6)	VT-446 (8)
C-3-K8	VT-448 (8)	
C-3-T8	VT-450 (8)	
C-3-Y8	VT-452 (8)	
C-3-HM8	VT-456 (8)	
C-3-HHM8	VT-458 (8)	
C-3-KM8	VT-460 (8)	
C-3-PW6	T-137 (6)	
C-3-HW	T-404 (6)	VT-404 (8)
C-3-DN	T-418 (6)	VT-418 (8)
C-3-FN	T-422 (6)	VT-422 (8)
C-3-KX8	VT-462 (8)	
C-3-TX8	VT-466 (8)	
C-3-YX8	VT-468 (8)	
C-3-GS	TS-442 (6)	VTS-442 (8)
C-3-HS	TS-444 (6)	VTS-444 (8)
C-3-HHS	TS-446 (6)	VTS-446 (8)
C-3-KS	VTS-448 (8)	

ENGINE	SIZE	OIL	C.P.
	Number of Cylinders, Bore and Stroke	Normal Oil Pressure, Lb at M.P.H. or R.P.M.	Compression, psi at Cranking Speed
DODGE			
TX-334	6-3 1/4x4 1/2	40-800	130-145e
T-334	6-3 1/4x4 1/2	40-800	130-145e
VT-334	8-3 1/4x4 1/2	50- 65a	125-140e
T-336	6-3 1/4x4 1/2	40-800	130-145e
VT-336	8-3 1/4x4 1/2	50- 65a	125-140e
T-361	6-3 1/4x4 1/2	40-800	130-145e
T-338	6-3 1/4x4 1/2	40-800	130-145e
VT-338	8-3 1/4x4 1/2	50- 65a	125-140e
T-362	6-3 1/4x4 1/2	40-800	130-145e
T-137	6-3 1/4x4 1/2	40-800	130-145e
T-164	6-3 1/4x4 1/2	40-800	130-145e
T-165	6-3 1/4x4 1/2	40-800	130-145e
T-342	6-3 1/4x4 1/2	40-800	130-145e
VT-342	6-3 1/4x4 1/2	50- 65a	125-140e
T-364	6-3 1/4x4 1/2	40-800	130-145e
TX-342	6-3 1/4x4 1/2	40-800	130-145e
VTX-342	8-3 1/4x3 1/2	50- 65a	125-140e
T-344	8-3 1/4x4 1/2	40-800	130-145e
VT-344	8-3 1/4x4 1/2	50- 65a	125-140e
T-356	8-3 1/4x4 1/2	40-800	130-145e
TX-344	6-3.4x4.7	40-800	130-145e
VTX-344	3.56x3 1/2	50- 65a	125-140e
TX-356	6-3.4x4.7	40-800	130-145e
T-346	6-3 1/2x4.8	40-800	130-145e
VT-346	8-3 1/2x3 1/2	50- 65a	125-140e
T-358	6-3 1/2x4.8	40-800	130-145e
TX-346	6-3 1/2x4.8	40-800	130-145e
VTX-346	8-3 1/2x3 1/2	50- 65a	125-140e

ENGINE	SIZE	OIL	C.P.
	Number of Cylinders, Bore and Stroke	Normal Oil Pressure, Lb. at M.P.H. or R.P.M.	Compression, psi at Cranking Speed
Continued			
TX-358	6-3.4x4.7	40-800	130-145e
VT-348	8-3 1/4x3 1/2	40- 65a	125-140e
VT-350	8-3 1/4x3 1/2	40- 65a	125-140e
VTX-350	8-3 1/4x3 1/2	40- 65a	125-140e
T-352	6-4 1/2x5 1/2	40-800	120-135f
T-353	6-4.06x5.31	40-800	120-135f
TS-342	6-3 1/4x4 1/2	40-800	130-145e
VTS-342		50- 65a	125-140e
TS-344	6-3 1/4x4 1/2	40-800	130-145e
VTS-344	3.56x3 1/2	50- 65a	125-140e
TS-346	3.4x4.7	40-800	130-145e
VTS-346	3.6x3.259	50- 65a	125-140e
VTS-348	3.8x3.6	40- 65a	125-140e
T-137, T-418, T-422, T-434, T-436, T-438	6-3 1/4x4 1/2	40 @ 800	130-145
VT-434, VT-436, VT-438, VT-442, VT-444, VT-446, VT-456, VT-458, VT-404, VT-418, VT-422, VTS-442	8-3.63x3.250	50- 65a	125-140
T-442, TS-442, T-444, TS-444, VTS-444, VTS-446	6-3.437x4.5	40 @ 800	130-145
T-404, T-446, TS-446	6-3.437x4.756	40 @ 800	130-145
VT-448, VTS-448, VT-450, VT-460, VT-462, VT-466	8-3.81x3.63	50- 65a	125-140
VT-452, VT-468	8-3.94x3.63	50- 65a	125-140

TRUCK DATA

FORD MARMON-HERRINGTON

ENGINE	SIZE	OIL	C.P.	IGNITION						VALVES								
	Number of Cylinders, Bore and Stroke	Normal Oil Pressure, Lb. at M.P.H. or R.P.M.	Compression, psi at Cranking Speed	Distributor Rotation	Cam Angle (deg.)	Breaker Point Gap	Breaker Arm Tension (oz.)	Spark Occurs °TC B-Before A-After	Spark Occurs Flywheel Teeth °TC B-Before A-After	Intake Valve Opens B-Before A-After °TC	Intake Valve Opens B-Before A-After Flywheel Teeth °TC	Intake Tappet Clearance for Valve Timing	Operating Tappet Clearance (Hot unless noted) Intake	Operating Tappet Clearance (Hot unless noted) Exhaust	Seat Angle (deg.)	Face Angle (deg.)	Guide Clearance
FORD																	
EBR-S-T	6-3.62x3.60	(a)	150	Cw	35-38 (d)	17-20	6B	....		24B	....	0	.018	.018	45	45	(g)
ECW, ECY, ECR	8-3.62x3.3	(a)	160	Ccw	26-28½ (e)	17-20	10B	....		12B	....	0	.018	.018	45	45	(g)
ECS-2 (b), ECS-4 (c)	8-3.62x3.66	(a)	150	Ccw	26-28½ (e)	17-20	(f)	....		18B	....	0	.009	.021	45	45	(g)
ECT-2 (b), ECT-4 (c)	8-3.80x3.66	(a)	140	Ccw	26-28½ (e)	17-20	10B	....		18B	....	0	.009	.021	45	45	(g)
MARMON-HERRINGTON				See Ford data above or Hercules, page 106.													

ENGINE	SPARK PLUGS				PISTONS, RINGS				VALVE SPRINGS				CAM	
	Make	Type	Size	Gap	Piston Clearance	Oil Ring Side Clearance	Comp. Ring Side Clearance	Ring End Gap	Valve Open Pressure (Av. lb.)	Valve Open Length—in.	Valve Closed Pressure (Av. lb.)	Valve Closed Length—in.	End Play	Bushing Clearance
FORD														
EBR-S-T	CH	860	18	.028-.032	.0006-.0012	(h)	.002-.0035	.010-.020	161-177	1.39	71-79	1.78	.003-.007	.001-.003
ECR-W-Y	CH	860	18	.028-.032	.0006-.0012	(h)	.002-.0035	.010-.020	161-177	1.78	71-79	1.39	.003-.007	.001-.003
ECS-T	CH	860	18	.028-.032	.007-.013	.0015-.0035	.002-.0035	.010-.020	161-177	1.78	71-79	1.39	.003-.007	.001-.003
MARMON-HERRINGTON														
MH Series	....	Opt	....	.025	See Hercules, page 106 See Ford Data Above				102	2 5/32	50	2 11/16	....	....
All Others														

NOTES

FORD

a—45 minimum @ 2000 rpm.
b—2-barrel carburetor.
c—4-barrel carburetor.
d—.024-.026.
e—.014-.016.
f—2-barrel model, 10°B; 4-barrel model, 8°B.
g—Intake, .001-.002; Exhaust, .002-.003.
h—Expansion type, no side clearance.
i—Capacity is for standard transmission. See optional equipment data as noted.
j—Optional 3-speed M. D. transmission 3½ pints; 3-speed H. D., 5½ pints; 3-speed O'Drive, 4 pints; 4-speed, 8 pints; Fordomatic, 20 pints on 6-cyl., 20.5 pints on 8-cyl.
k—6 cyl., 18½ qts.; 8 cyl., 22 qts.
l—Optional 3-speed H. D., 5½ pints; 4-speed, 8 pints; Fordomatic, 6-cyl., 20 pints; 8-cyl., 20.5 pints.
m—Optional, 4-speed, 8 pints; Fordomatic 6-cyl., 20 pints; 8-cyl, 20.5 pints.
n—Model F-500, F-600, belt circumference 36.25; Model B-500, B-600, belt circumference, 36.54 with EBS; 44.50 on ECY.
o—Opt. 5-spd., L. D., 7½ pts.; 5-spd., M. D., 9 pt.
p—2-spd. axle, 20 pt.
q—Opt. aux., 4 pt.
r—Combined axle and power divider, 43 pt. on T-750; 4 pt. on T-800.
s—Opt. 5-spd. H. D., 11½ pt.
t—2-spd. axle, 19 pt.
u—B-500, B-600, B-700, use 78-plate, 70 amp.-hr. battery.
v—Multi-purpose lube, 90 above 32°, 80 below 32°.
w—Fordomatic fluid, Type "A."
x—Multi-purpose lube, 140 above 100°; 90 @ 10°-100°; 80 below −10°.
y—Multi-purpose lube.
M—Maximum.
SR—Single rear wheel.
DR—Dual rear wheels.
*—Fresh air intake and dual exhaust mandatory.
**—Dual exhaust mandatory.

ENGINE	TENSIONS		
	Cylinder Head (Lbs. ft.)	Main Bearings (Lbs. ft.)	Connecting Rod Bearings (Lbs. ft.)
FORD			
ECS, ECT	110	120-130	45-50
All others	65-75	95-105	45-50
MARMON-HERR.	(See Ford data above or Hercules, page 106)		

MODEL	ENGINE	
	STANDARD	OPTIONAL
FORD		
F-100—F-350-SR	EBR	ECW
F-350-DR, F-500—B-500	EBS	ECW—F-530-SR (ECY—F-350-DR, F-500, B-500)
C-500	ECY	
P-350, P-500 (Par. Del.)	EBT	
F-600, B-600	EBS	ECY-2V-LD (ECR-2v & 4V-HD)
C-600	ECY	ECR-2V & 4V-HD
F-700, C-700, B-700, T-700	ECR-2V-HD	ECR-4V-HD
T-700	ECS-2V-HD	ECS-4V-HD*
F-750, C-750, T-750	ECS-2V-HD	ECS-4V-HD, F-750*—C-750**
B-750	ECS-2V-HD	
F-800, C-800, T-800	ECT-2V-HD	ECT-4V-HD, F-800, T-800*—C-800**
F-900, C-900	ECT-2v-HD	ECT-4V-HD, F-900*, C-900**

MODEL	ENGINE
MARMON-HERRINGTON	
6M104, 6M254, 6M354, 6M504, 6M604	Ford EBR
M104, M254, M354, M504, M604, M704	Ford ECW
M754	Ford ECS-2V (4V Opt.)
M804, M904	Ford ECT-2V (4V Opt.)
MH610, MH615	Her WXLC-3
MH620, MH625	Her RXLC
MH630	Her RXLDH

ENGINE	GENERATOR			STARTER						RODS, PINS			C. SHAFT		
	Brush Spring Tension	Max. Charge Rate	Voltage	Brush Spring Tension	Amp. (No Load)	Voltage (No Load)	Torque (Lock)	Amp. (Lock)	Voltage (Lock)	Pin Clearance	Rod Bearing Clearance	Rod Side Clearance	End Play	Main Bearing Clearance	End Thrust Carried on
FORD															
EBR-S-T	26–34	30	15	48–56	85(M)	12	15.5(M)	550(M)	5	.0001–.0003	.0004–.0023	.003–.009	.004–.008	.0005–.0025	No. 3
ECW, ECY, ECR	26–34	30	15	48–56	85(M)	12	15.5(M)	550(M)	5	.0001–.0003	.0008–.0027	.006–.016	.002–.006	.0006–.0032	No. 3
ECS, ECT	26–34	30	15	48–56	85(M)	12	15.5(M)	550(M)	5	.0001–.0003	.0007–.0026	.006–.014	.004–.008	.0015–.0033	No. 3
MARMON-HERRINGTON	See Ford data above or Hercules, page 106.														

MODEL	ENGINE	BATTERY					FRONT END				CAPACITIES				FAN BELT		
		Amp. Hour Capacity	Number of Plates	Terminal Grounded	S.A.E. Group Number	A.A.B.M. Group Number	Toe-In (In.)	Camber (Deg.)	Caster (Deg.)	King Pin Slant (Deg.)	Engine Oil (Qt.)	Transmission Oil (Pt.)	Rear Axle Oil (Pt.)	Cooling System Capacity (Qt.)	Circumference (In.)	Width (In.)	Angle of "V" (Deg.)
FORD																	
F-100	EBR, ECW	55	66	Neg			0–1/8	1/4–1	3–4	4=1/2	5	2 3/4(i)(j)	3.5	(k)	36.54	.38	36
F-250	EBR, ECW	55	66	Neg			0–1/8	1/4–1	3–4	4=1/2	5	3 1/2(l)	8	(k)	45.14	.50	36
F-350-SR	EBR, ECW	55	66	Neg			0–1/8	1/4–1	3–5	4=1/2	5	5 1/2(m)	8	(k)			
F-350-DR	EBS, ECY	55	66	Neg			0–1/8	1/4–1	3–5	4=1/2	5	5 1/2(m)	8	(k)	36.25	.38	36
															46.24	.50	36
F-500, B-500 (u)	EBS, ECY	55	66	Neg			0–1/8	1/4–1	3–5	4=1/2	5	8	15	(k)	(n)	.38	36
															45.14	.50	36
C-500	ECY	55	66	Neg			0–1/8	1/4–1	2 1/2–4 1/2	4=1/2	5	8	15	23	46.24	.50	36
F-600, B-600 (u)	EBS, ECY, ECR	55	66	Neg			0–1/8	1/4–1	2 1/2–4 1/2	4=1/2	5	8(o)	15	23	(n)	.38	36
															45.14	.50	36
C-600	ECY, ECR	55	66	Neg			0–1/8	1/4–1	2 1/2–4 1/2	4=1/2	5	8(o)	15	23	46.24	.50	36
F-700, C-700, B-700 (u)	ECR-2 & 4	55	66	Neg			0–1/8	1/4–1	3–5	5 1/2=1/2	6	9	17(p)	23	46.24	.50	36
															45.14	.50	36
T-700	ECR, ECS	55	66	Neg			0–1/8	1/4–1	3–5	5 1/2=1/2	6	9(q)	27(r)	27	46.24	.50	36
F-750, C-750, B-750	ECS-2 & 4	70	78	Neg			0–1/8	1/4–1	3–5	5 1/2=1/2	8	9(s)	17(p)	27	42.15	.812	36
F-800, C-800, F-900, C-900	ECT-2 & 4	70	78	Neg			0–1/8	1/4–1	3–5	5 1/2=1/2	8	11 1/2	22(t)	27	42.15	.812	36
P-350	EBT	55	66	Neg			0–1/8	1/4–1	3–5	4=1/2	5	5 1/2	8	(k)	36.25	.38	36
P-500	EBT	55	66	Neg			0–1/8	1/4–1	2 1/2–4 1/2	4=1/2	5	5 1/2(m)	15	(k)	36.25	.38	36
T-800	ECT-2 & 4						0–1/8	1/4–1	3–5	5 1/2=1/2	8	11 1/2(q)	49(r)	27	42.15	.812	36
MARMON-HERRINGTON																	
M104, 6M104							1/8	1	2° 40′	8							
254-354 Series							1/8	0	2 1/2	8							
504-604, 906 Series, MH615, 620							1/8	0	2 1/2	0							
704 Series, M806							1/8	1/4		8							
M706, CM706, M754, 904 Series	See Ford data above or Hercules, page 106.						1/8	1/4	2	8	See Ford Data above or Hercules, page 106.						
BM754, CM754, 756 Series							1/8	1/4		8							
804 Series							1/8–1/4	1/4		8							
MH610							1/8	1/4	2 1/2	8							
MH625, MH630							1/4	0	2 1/2	0							

MODEL WITH STANDARD ENGINE	LUBRICATION						
	Engine	Transmission		Rear Axle		Steering Gear	
	Viscosity and Temperature Range	Summer	Winter	Summer	Winter	Summer	Winter
FORD							
All Standard Units		(v)	(v)	80(x)	80(x)	(y)	(y)
All Auto. Transmission Units		(w)	(w)	80(x)	80(x)	(y)	(y)
MARMON-HERRINGTON							
MH610—MH630	40 above 32° 20 @ 10°—32°	140	90	140	90	140	90
All Others	See Ford recommendations above						

TRUCK DATA

FWD

ENGINE	SIZE	OIL	C.P.	IGNITION						VALVES								
	Number of Cylinders, Bore and Stroke	Normal Oil Pressure, Lb. at M.P.H. or R.P.M.	Compression, psi at Cranking Speed	Distributor Rotation	Cam Angle (deg.)	Breaker Point Gap	Breaker Arm Tension (oz.)	Spark Occurs °TC B-Before A-After	Spark Occurs Flywheel Teeth °TC B-Before A-After	Intake Valve Opens B-Before A-After °TC	Intake Valve Opens B-Before A-After Flywheel Teeth °TC	Intake Tappet Clearance for Valve Timing	Operating Tappet Clearance (Hot unless noted) Intake	Operating Tappet Clearance (Hot unless noted) Exhaust	Seat Angle (deg.)	Face Angle (deg.)	Guide Clearance
IHC BD-240	6-3 7/8x4 1/4	(a)	6.5	Ccw	31–37	(b)	17–21	.....	6B	10B	.....	.023	.026–.024	.026–.024	.....	.....	.0025
IHC BD-308	6-3 7/8x4 1/2	(a)	6.3	Cw	31–37	(b)	17–21	.....	6B	6B	.....	.023	.025–.023	.025–.023	.....	.....	.0025
IHC BD-282	6-3 7/8x4 1/2	(a)	6.3	Cw	31–37	(b)	17–21	.....	6B	8B	.....	.023	.025–.023	.025–.023	.....	.....	.0025
IHC RD-372	6-3 5/8x4 1/2	(a)	6.3	Cw	31–37	(b)	17–21	.....	5B	8B	.....	.023	.018	.018–.020	.....	.....	.0025
IHC RD-406	6-4 1/8x4 1/2	(a)	6.3	Cw	31–37	(b)	17–21	.....	5B	8B	.....	.023	.016	.018–.020	.....	.....	.0025
IHC RD-450	6-4 1/8x5	(a)	6.2	Cw	31–37	(b)	17–21	.....	5B	6B	.....	.023	.018	.018–.020	.....	.....	.0025
IHC RD-501	6-4 1/4x5 5/8	(a)	6.0	Cw	31–37	(b)	17–21	.....	5B	12B	.....	.020	.020	.018	.....	.....	(d)
Wau 145GK, 145GKB	.....	40–2400	103	.....	.....	.020	.....	TDC	TDC	5A	2A	.010	.013	.024	15	.....	.....
GMC 3-71	.....	(e)	.....	.....	.....	Diesel	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
GMC 4-71, 6-71	4 1/4x5	(e)	390	.....	.....	Diesel	.....	.....	.....	.....	.....	.....	.....	.008	.....	E30	.002–.004
Cummins engines	See Cummins engines, page 104																

ENGINE	SPARK PLUGS				PISTONS, RINGS				VALVE SPRINGS				CAM	
	Make	Type	Size	Gap	Piston Clearance	Oil Ring Side Clearance	Comp. Ring Side Clearance	Ring End Gap	Valve Open Pressure (Av. lb.)	Valve Open Length—In.	Valve Closed Pressure (Av. lb.)	Valve Closed Length—In.	End Play	Bushing Clearance
IHC BD-240	CH	J8	14	.028–.033	.003	.0015–.0035	.0025–.0040	.016–.026	149–149	1.683	.....	2 1/16	.0020–.0080	.0010–.0035
IHC BD-282, 308	CH	J8	14	.028–.033	.003	.0015–.0035	.0025–.0040	.016–.026	103–111	1.868	.....	2 3/16	.0020–.0080	.0010–.0035
IHC RD-372, 406, 450	CH	J8	14	.028–.033	.003	.0015–.0035	.0040–.0055	.025–.035	83–88	1.503	.....	2 1/16	.0020–.0080	.0010–.0035
IHC RD-501	CH	J6	14	.028–.033	.0065	.0015–.0035	.0040–.0055	.025–.035	83–88	1.503	.....	2 1/16	.0020–.0080	.0010–.0035
Wau 145GK, 145GKB	CH	H9	18	.025	.006	.00225	.00525	.035	133–141	1.706	65–75	2 1/16	.....	.....

NOTES

a—15 @ Idle, 40–45 @ 1200.
b—.018–.024.
c—.....
d—.0008–.0021.
e—45 @ governed speed.
f—2 batteries.
g—175 long, 150 short.

ENGINE	TENSIONS		
	Cylinder Head (Lbs. ft.)	Main Bearings (Lbs. ft.)	Connecting Rod Bearings (Lbs. ft.)
IHC BD-240	85–95	75–85	45–55
IHC BD-282, 308	75–85	100–110	60–70
Other IHC engines	100–110	100–110	60–70
Wau engines	(g)	242–250	65–70
GMC engines	165–175	180–190	65–75
Cummins engines	See Cummins, page 104.		

MODEL	STANDARD ENGINE
140, U150	IHC BD-240
171, 181, 6-221	IHC BD-282
182, 202, 222, 232, 6-222, 6-282	IHC BD-308
264, M264, 284, M284, 6-324	IHC RD-372
285, M285, 6-325	IHC RD-406
326, 6-365, 6-366, G6-406	IHC RD-450
367, 6-407	IHC RD-501
408, L-408	Wau 145 GK
409, 6-609	Wau 145 GKB
223D	GMC 3-71

MODEL	STANDARD ENGINE
264D, M264D, 284D, M284D, 324D, R6-404D, R6-406D, L6-406D, 406D, 6-406D, 6-606D	GMC 6-71
322D 388D, 6-368D	Cum HRB-600 Cum HRBB-600
L6-409D, 409D, 6-409D, 6-609D	Cum NHB

ENGINE	GENERATOR			STARTER						RODS, PINS			C. SHAFT		
	Brush Spring Tension	Max. Charge Rate	Voltage	Brush Spring Tension	Amp. (No Load)	Voltage (No Load)	Torque (Lock)	Amp. (Lock)	Voltage (Lock)	Pin Clearance	Rod Bearing Clearance	Rod Side Clearance	End Play	Main Bearing Clearance	End Thrust Carried on
IHC BD-240	28	30	12	24-28	70	11.3	16	530	6.7	.00035	.00215	.010	.009	.0025	Rear
IHC BD-282	28	30	12	24-28	70	11.3	16	530	6.7	.00035	.00019	.010	.0095	.0028	Rear
IHC BD-308	28	30	12	24-28	70	11.3	16	530	6.7	.00035	.00019	.010	.008	.0028	Rear
IHC RD-372	28	30	12	24-28	70	10.0	28	490	6.5	.00055	.00025	.010	.008	.0028	Rear
IHC RD-406, RD-450	28	30	12	36-40	75	11.25	51	700	5.0	.00055	.00025	.010	.008	.0028	Rear
IHC RD-501	28	30	12	36-40	75	11.25	51	700	5.0						
GMC 3-71	20	50	12	36-40	115	11.6	20	570	2.3						
GMC 4-71, 6-71	20	50	12	36-40	115	11.6	20	570	2.3	.0025- .0034	.0014- .0044	.006 .012	.004 .011	.0014- .0044	5, 7
Cummins engines	20	50	12	36-40	100	23.0	32	525	3.0						Rear
Wau 140GZ	28	30	12	36-40	65	11.4	44	725	5.0	.008	.002	.013	.005	.0035	Rear
Other Wau engines	28	30	12	36-40	65	11.4	44	725	5.0	.0008	.002	.013	.005	.0035	Rear

MODEL	ENGINE	BATTERY					FRONT END				CAPACITIES				FAN BELT		
		Amp. Hour Capacity	Number of Plates	Terminal Grounded	S.A.E. Group Number	A.A.B.M. Group Number	Toe-In (In.)	Camber (Deg.)	Caster (Deg.)	King Pin Slant (Deg.)	Engine Oil (Qt.)	Transmission Oil (Pt.)	Rear Axle Oil (Pt.)	Cooling System Capacity (Qt.)	Circumference (In.)	Width (In.)	Angle of "V" (Deg.)
140, U-150, 181, 182	IHC BD-240	65	13	Pos	12H	12H	1/16-1/8	3/4	1	0	7	4	5	....	....	....	....
6-282, 6-222, 6-221, 171	IHC BD-282	65	13	Pos	12H	12H	1/16-1/8	1	2	8	7	11	5	....	....	....	....
233D, 284, 285, 222, 6-282, 202, 232	IHC BD-308	65	13	Pos	12H	12H	1/16-1/8	1	2	8	7	11	12	....	....	....	....
M284, M285, 264, M264, 6-324	IHC RD-372	150f	21	Pos	4	4	1/16-1/8	1	2	8	9	24	12	....	....	....	....
285, 6-235	IHC RD-406	150f	21	Pos	4	4	1/16-1/8	1	2	8	9	24	12	....	....	....	....
305, 326, 6-366, G6-406	IHC RD-450	150f	21	Pos	4	4	1/16-1/8	1	2	8	9	24	12	....	....	....	....
367, 6-407, 305, 326	IHC RD-501	150f	21	Pos	4	4	1/16-1/8	1	2	8		24	16	....	....	....	....
Models with	Wau 145	150f	21	Pos	4	4	1/16-1/8	1	2	8	20	35	16	....	....	....	....
223D, M284D, 233D, 284D, 285D	GMC 3-71	150	21	Pos	4D	4D	1/16-1/8	1	2	8	13	24	12	....	....	....	....
Models with	GMC 4-71, 6-71	150	21	Pos	4D	4D	1/16-1/8	1	2	8	15	32	12	....	....	....	....
Models with	Cum HR	150f	21	Pos	4D	4D	1/16-1/8	1	2	8	28	24	16	....	....	....	....
Models with	Cum NHB	150f	21	Pos	4D	4D	1/16-1/8	1	2	8	28	35	16	....	....	....	....

MODEL WITH STANDARD ENGINE	LUBRICATION							
	Engine		Transmission		Rear Axle		Steering Gear	
	Viscosity and Temperature Range		Summer	Winter	Summer	Winter	Summer	Winter
140 (IHC SD-240)	Summer 30	Winter 10W	140	90	90	80	140	140
Other IHC engine models	Summer 40	Winter 20W	140	90	90	80	140	140
Models with Wau engines	Summer 30	Winter 10W	140	90	90	80	140	140

TRUCK DATA

GMC

ENGINE	SIZE	OIL	C.P.	IGNITION						VALVES								
	Number of Cylinders, Bore and Stroke	Normal Oil Pressure, Lb. at M.P.H. or R.P.M.	Compression, psi at Cranking Speed	Distributor Rotation	Cam Angle (deg.)	Breaker Point Gap	Breaker Arm Tension (oz.)	Spark Occurs °TC B-Before A-After	Spark Occurs Flywheel Teeth °TC B-Before A-After	Intake Valve Opens B-Before A-After °TC	Intake Valve Opens B-Before A-After Flywheel Teeth °TC	Intake Tappet Clearance for Valve Timing	Operating Tappet Clearance (Hot unless noted) Intake	Operating Tappet Clearance (Hot unless noted) Exhaust	Seat Angle (deg.)	Face Angle (deg.)	Guide Clearance
270	6-3 11/16x4	35-40	....	Ccw	31-37	.022	19-23	....	....	14B	....	....	.012	.020	....	30	I. .0017 E. .0035
302	8-4x4	35-40	....	Ccw	31-37	.022	19-23	....	....	14B	....	....	.012	.020	....	I. 30 E. 45	I. .0022 E. .003
316	6-3 11/16x3 1/4	35-40	....	Cw	26-33	.016	19-23	....	....	22B	....	....	None	None	....	I. 29 E. 44	.0004 (c)
324	8-3 7/16x3 1/4	8a	....	Cw	26-33	.016	19-23	....	....	....	....	....	(b)	(b)	....	45	I. .0031 E. .0036
503	6-4 1/4x5 1/2	35-40	....	Ccw	31-37	.022	17-21	....	....	30B	....	....	.012	.020	....	I. 30 E. 45	.0022 .0037
4-71 and 6-71 Diesels	4-4 1/4x5	25 Min.	....	....	....	Diesel	....	....	....	....	....	....	....	.008	....	E. 30	E. .003

ENGINE	SPARK PLUGS				PISTONS, RINGS				VALVE SPRINGS				CAM	
									Valve Open		Valve Closed			
	Make	Type	Size	Gap	Piston Clearance	Oil Ring Side Clearance	Comp. Ring Side Clearance	Ring End Gap	Pressure (Av. lb.)	Length—in.	Pressure (Av. lb.)	Length—in.	End Play	Bushing Clearance
270	AC	44 Com	14	.030	.0035d	.0015-.0055	.0025-.0045	.003-.021	I. 142-158 E. 139-155	....	53-63	....	.003-.006	.001-.003
316	AC	44.5	14	.035	.0015e	.0025-.0095	.0012-.0032	.010-.020	I. 56-60 O. 98-106	....	23-29 55-61	....	.003-.007	.0015-.0025
302	AC	44 Com	14	.030	.004d	.012-.035	.0025-.0045	.010-.020	I. 142-158 E. 139-155	....	53-63 53-63	....	.003-.006	.001-.003
324	AC	44.5	14	.030	.0015f	.018-.003	.001-.003	.008-.020	I. 149-163 E. 149-163	....	85-95 85-95	....	....	.0016-.0036
503	AC	44 Com	14	.030	.004d	.001-.003	.0025-.0045	.016-.024	I. 191 E. 191	....	69 69	....	.003-.007	.002-.0035
4-71 and 6-71 Diesel	....	....	....	....	.004g	.0015-.0055	.0055-.0105	.0025-.004	I. . E. 130	....	....	....	.003-.011	.0025-.004

NOTES

a—Minimum at idle. b—Hydraulic.
c—Tapered in small end.
d—With feeler gauge @ 4-8 lb.
e—With feeler gauge @ 8-15 lb.
f—With feeler gauge @ 10-18 lb.
g—With feeler gauge @ 6 lb.
h—.0007-.0033 i—.0011-.0032. j—.0014-.0044.
k—.0005-.003. Rear only, .0008-.0033.
l—Front, .0005-.002; Rear, .002-.0035. No. 2, 3 and 4, .0005-.003.
m—Rear only 120. n—Rear only 140.
o—Add 1 qt. with GMC heater.
p—Add 1 qt. with Hydra-Matic.
q—Add 1½ qt. with Hydra-Matic.
r—Add 1½ qt. with L-1 filter, 2½ qt. with S-2 filter.
s—Add 1 qt. for filter.
t—With standard transmission.
u—With standard rear axle.
v—Does not include torque divider.
w—Front unit 28, not including torque divider, rear unit 33.
x—Add 2 pts. at differential lock.
y—Optional battery, 115 amp. hr., 17-plates.
z—Each axle. *Add 1 qt. for 8 cyl. models.

ENGINE	TENSIONS		
	Cylinder Head (Lbs. ft.)	Main Bearings (Lbs. ft.)	Connecting Rod Bearings (Lbs. ft.)
270, 302	90-100	90-100	40-45
316	90-95	95m	45
324	65-70	100n	40-50
503	100-110	90-100	80 Min.
4-71, 6-71 Diesel	165-175	180-190	65-75

MODEL	STANDARD ENGINE
100, 150, 250, 300, 350, F350, S300, PM150, PM250, 370, S370	270
450, W500, MW500, F450, S450	302
100-8, 150-8, 250-8, 300-8, 350-8, 370-8, F350-8, F370-8, S300-8, S370-8	316
550, F550, W550, MW550, FW550, FMW550, 600, F600	324

MODEL	STANDARD ENGINE
M630, F630, FM630, 630, W630, MW630, FW630, 660, M660, F660, FM660, W660, MW660, FW660, FMW660, W670	503
D630, D660, DF660, DFM660, DW660	4-71
DF860, DFM860, DFW860, DFMW860, DF920, DFM920, D930, DW950, DMW950, DFW950, DFMW950, DW970	6-71

ENGINE	GENERATOR			STARTER						RODS, PINS			C. SHAFT		
	Brush Spring Tension	Max. Charge Rate	Voltage	Brush Spring Tension	Amp. (No Load)	Voltage (No Load)	Torque (Lock)	Amp. (Lock)	Voltage (Lock)	Pin Clearance	Rod Bearing Clearance	Rod Side Clearance	End Play	Main Bearing Clearance	End Thrust Carried on
270	28	45	6	24-28	65	5.0	15	570	3.15	.0004	.0015	.0095	.0055	(h)	No. 3
316	28	25	14	35	95	10.1	10.5	470	5.4	.0002	.0017	.0065	.0055	(k)	No. 4
302	19	45	6	24-28	60	5.0	15	600	3.0	.0004	.0015	.0095	.0055	(h)	No. 3
324	19	30	14	35	95	10.1	11	460	5.2	.0002	.0017	.0065	.006	(i)	No. 5
360	28	45	6	24-28	65	5.0	16	600	3.0	.00014	.0027	.0075	.0055	(i)	No. 4
503	28	45	6	24-28	70	5.0	28	600	3.0	.0005	.0027	.0075	.0055	(i)	No. 4
4-71 Diesel	20	50	13	36-40	115	11.6	20	570	2.3	.003	.0029	.009	.0075	(j)	No. 6
6-71 Diesel	20	50	13	36-40	115	11.6	20	570	2.3	.003	.0029	.009	.0075	(j)	No. 7

MODEL	ENGINE	BATTERY			FRONT END			CAPACITIES			
		Amp. Hour Capacity	Number of Plates	Terminal Grounded	Toe-In (In.)	Camber (Deg.)	Caster (Deg.)	Engine Oil (Qt.)	Transmission Oil (Pt.)	Rear Axle Oil (Pt.)	Cooling System Capacity (Qt.)
100	270	100 (y)	15	Pos	1/16-1/8	1	2	8 (r)	1½ (t)	4½ (u)	17 (o)
100-8	316	50	....	Pos	1/16-1/8	1	2	5 (t)	1½	4½	26
150	270	100 (y)	15	Pos	1/16-1/8	1	2½	8 (r)	1½	6½	17
150-8	316	50	....	Pos	1/16-1/8	1	2½	5 (t)	1½	6½	26
PM-150, PM-250	270	100 (y)	15	Pos	1/16-1/8	1	2½	8 (r)	8½-9*	6½	17
250	270	100 (y)	15	Pos	1/16-1/8	1	2½	8 (r)	6	6½	17
250-8	316	50	....	Pos	1/16-1/8	1	2½	5 (t)	6	6½	26
300, S-300	270	100 (y)	15	Pos	1/16-1/8	1	3	8 (r)	6	14	17 (p)
300-8, S-300-8, 350-8, F-350-8, 370-8, F & S 370-8	316	50	....	Pos	1/16-1/8	1	3	5 (t)	6	14, 16½	26 (p)
350, F-350, 370, F-370, S-370	270	100 (y)	15	Pos	1/16-1/8	1	3	8 (r)	6	16½	18 (p)
450, F-450, S-450	302	100 (y)	15	Pos	1/16-1/8	1	3	8 (r)	10	20	19½
450-8, F-450-8	316	50	....	Pos	1/16-1/8	1	3	5 (t)	10	30	26 (q)
W-500	316	50	....	Pos	1/16-1/8	1	3	5 (t)	10	12 (v)	26
MW-500	316	50	....	Pos	1/16-1/8	1	3	5 (t)	29-30	17 (v)	27½
550, F-550	324	....	....	Pos	1/16-1/8	1	2½, 2	5 (t)	10	22	22½
W-550, FW-550	324	....	....	Pos	1/16-1/8	1	2, 1½	5 (t)	10	(w)	22½
MW-550, FMW-550	324	....	....	Pos	1/16-1/8	1	2, 1½	5 (t)	29-30	(w)	24
600, F-600	324	....	....	Pos	1/16-1/8	1	2½, 2	5 (t)	10	21	22½
630, F-630	503	115	17	Pos	1/16-1/8	1	2½, 2	9 (t)	17	22	29, 30½
M-630	503	115	17	Pos	1/16-1/8	1	2½	9 (t)	46-48	32	30½
FM-630, MW-660	503	115	17	Pos	1/16-1/8	1	2	9 (t)	46-48	32, 28	30½
W-630, FW-660	503	115	17	Pos	1/16-1/8	1	2	9 (t)	17, 32	28 (w)	30½
MW-630, FMW-660	503	115	17	Pos	1/16-1/8	1	2	9 (t)	46-48	28 (w)	30½
660, F-660	503	115	17	Pos	1/16-1/8	1	2½, 2	9 (t)	17	24	30½
M-660, FM-660	503	115	17	Pos	1/16-1/8	1	2½, 2	9 (t)	46-48	34	30½
W-660, W-670	503	115	17	Pos	1/16-1/8	1	2	9 (t)	32, 17	28	30½
D-630, D-660, DF-860	4-71	205	27	Pos	1/16-1/8	½-1	2½	20	17	21	30 (q)
DFM-660	4-71	205	27	Pos	1/16-1/8	½-1	2½	20	23-24	34	30 (q)
DW-660	4-71	205	27	Pos	1/16-1/8	½-1	2½	20	32	28 (z)	30 (q)
DF-860	6-71	205	27	Pos	1/16-1/8	½-1	2½	22	17	24	39 (q)
DFM-860, DFM-920	6-71	205	27	Pos	1/16-1/8	½-1	2½	22	23-24	34	39 (q)
DFW-860	6-71	205	27	Pos	1/16-1/8	½-1	2½	22	32	28 (x)	39 (q)
DFMW-860	6-71	205	27	Pos	1/16-1/8	½-1	2½	22	23-24	28 (x)	39 (q)
DF-920	6-71	205	27	Pos	1/16-1/8	½-1	2½	22	17	32	39 (q)
D-930	6-71	205	27	Pos	1/16-1/8	½-1	2½	22	32	36	39 (q)
DW-950	6-71	205	27	Pos	1/16-1/8	½-1	2½	22	17	40 (z)	39 (q)
DMW-950, DFMW-950	6-71	205	27	Pos	1/16-1/8	½-1	2½	22	23-24	40 (z)	39 (q)
DFW-950	6-71	205	27	Pos	1/16-1/8	½-1	2½	22	32	40 (z)	39 (q)
DW-970	6-71	205	27	Pos	1/16-1/8	½-1	2½	22	17	28 (x)	39 (q)

LUBRICATION

MODEL WITH STANDARD ENGINE	Engine	Transmission		Rear Axle		Steering Gear	
	Viscosity and Temperature Range	Summer	Winter	Summer	Winter	Summer	Winter
All gasoline engines	30 above 90° 20 @ 32°—90° 10W @ 60° to −10° 5W below −10°	Mechanical (u)	(u)	(v)	(v)	No. 1	No. 1
All Diesel engines	30 @ 120° to 32° 20W @ 60° to −10° 10W @ −10° to −30°						

TRUCK DATA

INTERNATIONAL HARVESTER

ENGINE	SIZE	OIL	C.P.	IGNITION						VALVES								
										Intake Valve Opens B-Before A-After			Operating Tappet Clearance (Hot unless noted)					
	Number of Cylinders, Bore and Stroke	Normal Oil Pressure, Lb. at M.P.H. or R.P.M.	Compression, psi at Cranking Speed	Distributor Rotation	Cam Angle (deg.)	Breaker Point Gap	Breaker Arm Tension (oz.)	Spark Occurs °TC B-Before A-After	Spark Occurs Flywheel Teeth °TC B-Before A-After	°TC	Flywheel Teeth °TC	Intake Tappet Clearance for Valve Timing	Intake	Exhaust	Seat Angle (deg.)	Face Angle (deg.)	Guide Clearance
BD-220	6-3 7/8x3 1/2	(a)			31-37	.018-.024	17-21			10B		.033	.024-.026	.024-.026		30	
BD-240	6-3 7/8x4 1/2	(a)			31-37	.018-.024	17-21			10B		.033	.024-.026	.024-.026		30	
BD-264	6-3 1/2x4 1/2	(a)			31-37	.018-.024	17-21			10B		.033	.024-.026	.024-.026		30	
BD-269	6-3 7/8x4 1/2	(b)			31-37	.018-.024	17-21			9B		.023	.020-.022	.020-.022		15a	
BD-282	6-3 1/2x4 1/2	(b)			31-37	.018-.024	17-21			12B		.020	.020-.022	.020-.022		15	
BD-308	6-3 1/2x4 1/2	(b)			31-37	.018-.024	17-21			12B		.020	.020-.022	.020-.022		15	
RD-372	6-4 5/8x4 1/2	(b)			31-37	.018-.024	17-21			16B		.023	.020-.027	.020-.022		15	
RD-406	6-4 5/8x4 1/2	(b)			31-37	.018-.024	17-21			16B		.023	.020-.022	.020-.022		15	
RD-450 RD-501	6-4 5/8x5 6-4 1/2x5 1/4	(b)			31-37	.018-.024	17-21			16B		.023	.020-.022	.020-.022		15	

ENGINE	SPARK PLUGS				PISTONS, RINGS				VALVE SPRINGS				CAM	
									Valve Open		Valve Closed			
	Make	Type	Size	Gap	Piston Clearance	Oil Ring Side Clearance	Comp. Ring Side Clearance	Ring End Gap	Pressure (Av. lb.)	Length—In.	Pressure (Av. lb.)	Length—In.	End Play	Bushing Clearance
BD-220	(d)	(d)	14	.028-.033	.004f	.0020-.0040	(h)	.016-.026	149-158	1 1/16			.0020-.0100	.0010-.0035
BD-240	(d)	(d)	14	.028-.033	.003f	.0020-.0040	(h)	.016-.026	149-158	1 1/16			.0020-.0100	.0010-.0035
BD-264	(d)	(d)	14	.028-.033	.0013f	.0020-.0040	.0025-.0040	.015-.025	149-158	1 1/16			.0020-.0100	.0010-.0035
BD-269	(d)	(d)	14	.028-.033	.....	.0015-.0040	(i)	.016-.025	111-121	1 3/16			.0020-.0100	.0010-.0035
BD-282, BD-308	(d)	(d)	14	.028-.033	.0035	.0015-.0035	(i)	.010-.026	186-196	1 1/16			.0020-.0010	.0010-.0035
RD-372, RD-406	(e)	(e)	14	.028-.033	.005f	.0015-.0035	(j)	.025-.035	I. 83-88 O. 133-141	1 1/32 1 1/16			.0015-.0095	.0010-.0035
RD-450	(e)	(e)	14	.028-.033	.004f	.0015-.0035	(j)	.025-.035	I. 83-88 O. 133-141	1 1/32 1 1/16			.0015-.0095	.0010-.0035
RD-501	(e)	(e)	14	.028-.033	.004f	.0015-.0035	(k)	.020-.030	I. 83-88 O. 133-141	1 1/32 1 1/16			.0015-.0095	.0010-.0035

ENGINE	RODS, PINS			CRANKSHAFT			TENSIONS		
	Pin Clearance	Rod Bearing Clearance	Rod Side Clearance	End Play	Main Bearing Clearance	End Thrust Carried on . . .	Cylinder Head (Ft. Lb.)	Main Bearings (Ft. Lb.)	Connecting Rod Bearings (Ft. Lb.)
INTERNATIONAL									
BD-220, BD-240	.0003-.0005(l)	.0011-.0032		.0020-.0100	.0014-.0040	(g)	85-95	75-85	45-55
BD-264	.0003-.0005(l)	.0011-.0032		.0020-.0100	.0012-.0042	(g)	85-95	75-85	45-55
BD-269, BD-282, BD-308	.0003-.0005(l)	.0007-.0032		.0020-.0100	.0013-.0043	(g)	75-85	100-110	60-70
RD series	.0005-.0007(l)	.0012-.0037		.0015-.0095	.0013-.0043	(g)	100-110	100-110	75-85

MODEL	STANDARD ENGINE
S-100, S-102, SA Series, SM-120, SM-152	BD-220
S-110, S-153, SM-160, SM-162	BD-240
S-160 Series, SC-160 Series, S-1700 Series	BD-264
S-170 Series	BD-269
SF-170 Series, S-180 Series, SC-180 Series, CO-180 Series	BD-282
SF-180, SF-182, S-1840	BD-306
R-185, R-1853, R-190, R-194, CO-190, CO-192	RD-372

MODEL	STANDARD ENGINE
R-195, RF-190, RF-194, CO-195, COF-190, COF-192, R-200, R-202, RF-200, RF-202, CO-200, CO-202, COF-200, COF-202	RD-406
RF-195, COF-195, R-205, RF-205, CO-205, COF-205, R-210, R-212, RF-210, RF-214	RD-450
R-220, R-225, CO-220, CO-225, RF-230	RD-501
C-405-L, TC-405-L, FC-405-L	RD-406 (RD-450 and RD-501 Optional)

MODEL	ENGINE	BATTERY				FRONT END				CAPACITIES					
		Amp. Hour Capacity	Number of Plates	Terminal Grounded	A.A.B.M. Group Number	Toe-In (In.)	Camber (Deg.)	Caster (Deg.)	King Pin Slant (Deg.)	Engine Oil (Qt.)	Transmission Model	Transmission Oil (Pt.)	Rear Axle Model	Rear Axle Oil (Pt.)
S-100	BD-220	90	15	Pos	2L	1/16–3/16	2	2-3	4	7	T-1	3	RA-1	3
S-110, S-120	BD-240	100	15	Pos	2	1/16–1/8	2	2-3	4	7	T-2	4	RA-5, RA-10	4
SA-120, SM-120	BD-220	105	15	Pos	2	1/16–3/16	2	2-3	4	7	T-5	6	RA-15, RA-20	6
SA-140, SM-150											T-10	5	RA-25, RA-30	8
S-130	BD-240	100	15	Pos	2	1/16–3/16	2	2-3	4	7	T-15	7	RA-35, RA-125, RA-130, RA-301	11
S-120 (4X4)	BD-240	100	15	Pos	2	1/16–1/8	1½ 2½ 3¼	2-3	7½	7	T-23, T-21	8		
S-150	BD-240	100	15	Pos	2	1/16–1/8	1	2-3	4	7	T-26	20	RA-40	12
S-160, SC-160	BD-264	105	15	Pos	2	1/16–1/8	1	2-3	4	7	T-30, T-31, T-41	24	RA-45, RA-150	22
SM-160	BD-240	105	15	Pos	2	1/16–1/8	1	2-3	4	7	T-40	26	RA-50	21
S-140	BD-240	100	15	Pos	2	1/16–1/8	1	1-2	0	7	T-50, T-51	38	RA-55, RA-155, RA-440	24
S-160 (4X4)	BD-264	105	15	Pos	2	1/16–1/8	1	1-2	0	7	T-59, T-63	48		
S-180, SC-180	BD-282	135	19	Pos	2	1/16–1/8	1	2-3	4	7	T-70, T-73	52	RA-60, RA-430	23
SF-180	BD-306					1/16–1/8	1	2-3	4	7	T-75, T-76 T-210, T-211	34	RA-70	28
S-184	BD-282					1/16–1/8	1	2-3	4	7	T-255, T-280	48	RA-120	13
R-185, R-190	RD-372	150	21	Pos	4	1/16–1/8	1	2-3	4	9	T-220	58	RA-135	16
RF-190, CO-200	RD-406					1/16–1/8	1	2-3	4	9	T-230, T-231	64	RA-140	20
CO-180	BD-282					1/16–1/8	1	2-3	4	7	T-245, T-260	32	RA-145	18
CO-190	RD-372					1/16–1/8	1	2-3	4	9	AT-501	4	RA-160, RA-165	29
CO-220	RD-501					1/16–1/8	1	2-3	4	9	AT-519, -524	16	RA-170	34
R-200	RD-406	150	21	Pos	4	1/16–1/8	1	2-3	3	9	AT-527, -530	26	RA-175, RA-185, RA-186	39
R-220	RD-501	150	21	Pos	4	1/16–1/8	1	2-3	4	9	AT-539, -631	24	RA-180	32
COF-190, COF-200, RF-200	RD-406					1/16–1/8	1	2-3	5½	9			RA-190	35
R-210, RF-210	RD-450	150	21	Pos	4	1/16–1/8	1	2-3	5½	9			RA-240, RA-285	20
RF-210	RD-450					1/16–1/8	1	2-3	5½	9			RA-245, RA-250	19
RF-230	RD-501					1/16–1/8	1	2-3	4	9			RA-255	
													RA-270	36
													RA-275	38
													RA-286, RA-290	37
													RA-305	14
													RA-450	33

GENERATOR				STARTER						
Model	Brush Spring Tension	Max. Charge Rate	Voltage	Model	Brush Spring Tension	Amp. (No Load)	Voltage (No Load)	Torque (Lock)	Amp. (Lock)	Voltage (Lock)
1100031, 1105009	28	40	6	108130, -142, -153, -157, -161	24 min.	70	11.3	16	530	6.7
1102005	28	30	12	1107967, 1108009, 1109018, 1813397	24 min.	70	5.65	13.5	570	3.15
1102785	28	45	6	1107985, 1108033, 1108042, 1108051	24 min.	80	5.67	14	600	3.0
1105008	28	50	6	1108813, -40, -48	36-40	115	11.6	20	570	2.3
1105876	28	25	6	1108220, -21	24 min.	70	5.0	22	600	3.0
1105941	28	20	12	1107153, -56, -40	24 min.	70	5.65	11	550	3.25
1106757	20	55	6	1113039	28-36	50	5.7	21	500	3.0
1106758	20	45	6	1113040	28-36	50	11.5	22	500	3.25
1106821	20	40	12	1109009, -15	36-40	70	5.7	35	600	3.0
1106822	20	30	12	1108863, -71	36-40	100	23.0	32	525	3.0
1106867	20	20	24	1109005, 1109012	36-40	75	11.25	51	700	5.0
1106976	28	55	6							
1106-805, 909, 913	20	50	12							

NOTES

a—Min., 8-15 @ idle; max., 30-40 @ 1500 rpm.
b—Min., 8-15 @ idle; max., 35-45 @ 1500 rpm.
c—Silichrome, 45°.
d—AC-45 Com, CH-J8 or AL-A7.
e—AC-43 Com, CH-J6 or AL-A5.
f—Top of skirt.
g—Thrust flange.
h—Top, .0025-.0040; second, .0015-.0030.
i—Top, .0025-.0040; second and third, .0015-.0030.
j—Top, .0040-.0055; second and third, .0020-.0035.
k—Top, .0040-.0055; second, .0030-.0045.
l—Clearance in rod.

TRUCK DATA

KENWORTH WARD-LA FRANCE

ENGINE	SIZE	OIL	C.P.	IGNITION						VALVES							
	Number of Cylinders, Bore and Stroke	Normal Oil Pressure, Lb. at M.P.H. or R.P.M.	Compression, psi at Cranking Speed	Distributor Rotation	Cam Angle (deg.)	Breaker Point Gap	Breaker Arm Tension (oz.)	Spark Occurs °TC B-Before A-After	Spark Occurs Flywheel Teeth °TC B-Before A-After	Intake Valve Opens B-Before A-After °TC	Intake Valve Opens B-Before A-After Flywheel Teeth °TC	Intake Tappet Clearance for Valve Timing	Operating Tappet Clearance (Hot unless noted) Intake	Operating Tappet Clearance (Hot unless noted) Exhaust	Seat Angle (deg.)	Face Angle (deg.)	Guide Clearance
KENWORTH																	
Cum HB-600	6-4 7/8 x6	55–	525	....	....	....	....	....	....	5B	....	....	.014	.022	30	30	....
Cum NHB	6-5 1/2 x6	30-50(a)	....	....	....	....	....	....	....	....	....	....	.014	.027	30	30	.002
Con R-6513	6-4 1/2 x5 5/8	50-60	120	....	....	....	....	....	....	19B	....	....	.020	.024	....	....	....
HS 1091-G-1	6-5 1/2 x7	60-1000	110	....	....	....	....	2B	....	10B	....	.021	.021	.031	....	....	....
HS590GV3	6-5x5	60(b)	130	Cw	31–37	.022	21	5B	....	10B	....	....	.016	.016	45	45	I. .002 E. .004
WARD-LA FRANCE																	
Con T6427	6-4 1/2 x4 7/8	40-60	....	....	....	.020	....	5B	....	16B	....	.022	.017	.017	....	....	....
Con R-6572	6-4 1/2 x5 1/2	50-60	120	....	....	.020	....	5B	....	12B	....	.0245	.020	.020	....	....	....
Con R-6602	6-4 1/2 x5 5/8	50-60	120	....	....	.020	....	5B	....	12B	....	.0245	.020	.020	....	....	....
Cum HB-600	6-4 7/8 x6	30-50	....	....	....	....	....	....	....	5B	....	....	.014	.022	....	....	....
Cum HRB-600	6-5 1/2 x6	....	....	....	....	....	....	....	....	5B	....	....	.014	.022	....	....	....
Cum NHB-600	6-5 1/2 x6	30-50	....	....	....	....	....	....	....	20B	....	....	.014	.027	....	....	....
Cum HRF	6-5 1/2 x6	....	....	....	....	....	....	....	....	77B	....	....	.016	.028	....	....	....

ENGINE	SPARK PLUGS				PISTONS, RINGS				VALVE SPRINGS				CAM	
									Valve Open		Valve Closed			
	Make	Type	Size	Gap	Piston Clearance	Oil Ring Side Clearance	Comp. Ring Side Clearance	Ring End Gap	Pressure (Av. lb.)	Length—in.	Pressure (Av. lb.)	Length—in.	End Play	Bushing Clearance
KENWORTH														
Cum HB600	....		Diesel	....	.007	.0035	....	.012-.021	136	2 1/16	87	2 1/2	(c)	.0030
Cum NHB	....		Diesel	....	(d)	.006	.006	.013-.023	78	2 1/4	109	1 11/16	....	(e)
Con 6513	....	....	18	.025	....	....	....	....	....	....	....	....	....	....
HS 1091-G-1	....	....	18	.018	....	....	....	....	109	1 11/16	78	2 1/4	....	....
HS-590EV3	CH	J-5	14	.025	.005	.002	.004	(f)	225	....	116	....	.005	.005
WARD-LA FRANCE														
Con T-6427	CH	....	....	.025	....	....	....	....	I. 57 O. 129	1.458	12.8 71	1 3/8	....	....
Con R6572, R6602	CH	....	....	.025	....	....	....	....	I. 85 O. 165	1 3/4	35 70	2 1/4	....	....
Cum HB-600	....	....	....	....	....	....	....	....	I. 129 O. 143	2 1/8	83 91	2 11/16	....	....
Cum NHB-600	....	....	....	....	....	....	....	....	I. 104 O. 114	1 11/16	74 82	2 3/8	....	....

MODEL	ENGINE	
KENWORTH	STANDARD	OPTIONAL
521, 522, 523, 524, 548, 552	Cum NHB	All Cummins except NHHB, HS-935 and 1091, Buda DAT-779 and DAT-844 JT-6-B
585, 829	HS-590-GV3	
825	Cum NHB	
842, 843	Cum NHHB	
848, 849	Cum NHB	All Cum & HS 1091
888	Cum NHB	Cum NHRBS
801	Cum NHBID	
802	Cum NHRBSID	
803	Cum NRT	Cum NVHB-1200
851, 854	Con R6513	
853	HS 400	

MODEL	STANDARD ENGINE
WARD-LA FRANCE	
D-1, D-1C	Con T6427
D-3	Con R6572
D-3S	Con R6602
D-5	Cum HB-600
D-5R	Cum HRB-600
D-5N	Cum NHB-600
D-5RB	Cum HRF

MODEL	ENGINE	BATTERY					FRONT END				CAPACITIES				FAN BELT		
		Amp. Hour Capacity	Number of Plates	Terminal Grounded	S.A.E. Group Number	A.A.B.M. Group Number	Toe-In (In.)	Camber (Deg.)	Caster (Deg.)	King Pin Slant (Deg.)	Engine Oil (Qt.)	Transmission Oil (Pt.)	Rear Axle Oil (Pt.)	Cooling System Capacity (Qt.)	Circumference (In.)	Width (In.)	Angle of "V" (Deg.)
KENWORTH																	
521-524, 548, 552, 825, 842-849	Cum NHB	150	19	Pos	4	...	1/8	1	3 1/2	5 1/2	28(g)	(h)	.....	53	...	...	...
888	NHB	150	19	Pos	4	...	1/8	1	1 1/2	8	28(g)	(h)	.....	63	...	...	...
801, 802	NHBID, NHRBSID	150	19	Pos	4	...	1/8	0	1 1/2	0	28(g)	(h)	.....	63	...	...	...
803	NRT	150	19	Pos	4	...	1/4	1	0	0	28(g)	(h)	.....	108	...	...	...
851, 854	R-6513	150	19	Pos	4	...	1/8	0	5	0	14(g)	(h)	.....	62	...	...	...
853	HS-400	150	19	Pos	4	...	1/8	0	5	0	21(g)	(h)	.....	120	...	...	...
585, 829	HS-590	150	19	Pos	4	...	1/8	1	3 1/2	5 1/2	16(g)	(h)	.....	53	...	...	...
WARD-LA FRANCE																	
D-1	Con T-6427	152a	19	Pos	...	...	1/8 to 1/4	5/8-1 1/2	1/2-1 1/2	5 1/2	8b	16c	31d	38	...	...	...
D-3, D-3S	Con R6572, R6602	152a	19	Pos	...	...	1/8 to 1/4	5/8-1 1/2	1/2-1 1/2	5 1/2	14e	24c	38d	60	...	...	...
D-5	Cum HB-600	152f	19	Pos	...	...	1/8 to 1/4	5/8-1 1/2	1/2-1 1/2	5 1/2	20	24g	38d	56	...	...	...
D-5N, D-5R, D-5RB	Cum NHB-600, HRB-600, HRF	152f	19	Pos	...	...	1/8 to 1/4	5/8-1 1/2	1/2-1 1/2	5 1/2	28	24g	38d	56	...	...	...

LUBRICATION

MODEL WITH STANDARD ENGINE	Engine	Transmission		Rear Axle		Steering Gear	
	Viscosity and Temperature Range	Summer	Winter	Summer	Winter	Summer	Winter
KENWORTH							
Models with Cummins engines	30 above 90° 20 @ 32°-90° 10W below 32°	(i)	(i)	(j)	(j)	140	140
Models with HS engines	30 above 32° 20 below 32°	(i)	(i)	(j)	(j)	140	140
WARD-LA FRANCE							
D-1, D-1C, D-3, D-3S, Con T-6427, R-6572, R-6802	40 summer 20 or 10 winter	140	90	140	90	140	140
D-5, D-5N, D-5R, D-5RB, Cum HB-600, HRB-600, NHB-600, HRF	30 @ 80° to 100° 20 @ 20° to 80° 10 below 20°	140	90	140	90	140	140

NOTES

KENWORTH

Data shown is for standard equipment only.

a—At 2100 rpm.
b—At 2800 rpm.
c—.005-.010.
d—Aluminum piston, clearance, .012.
e—.0015-.0040.
f—Compression ring, .017-.027; Oil ring, .013-.023.
g—Plus 14 qts. for Luber-finer.
h—4-speed Spicer, 16; 5-speed Spicer, 24; 12 pts. for auxiliary transmission.
i—All Spicer transmission, 50 summer and winter. All Fuller transmissions, 140 summer, 90 winter. All Allison transmissions, 10 summer and winter, hydraulic transmission fluid, Type C optional.
j—All rear axles, 140 summer and winter. With worm drive use heavy duty worm drive lubricant, all others use SCL type hypoid gear lubricant.

WARD-LA FRANCE

a—2 batteries.
b—Add 1 qt. for filter.
c—Aux. transmission with tandem axles.
d—Tandem axle models have following capacities for each axle: Model Nos. ending in T2-14 pt.; T4-17 pt.; T7-32 pt.; T8-26 pt.; F-38 pt.; G-34 pt.; H-38 pt.
e—Add 4 qt. for filter.
f—4 batteries.
g—Aux. transmission with tandem axles—12 pt.

ENGINE	TENSIONS		
	Cylinder Head (Lbs. ft.)	Main Bearings (Lbs. ft.)	Connecting Rod Bearings (Lbs. ft.)
KENWORTH			
Cum HB-600	430-450	310-330	105-115
Cum NHB	430-450	140+30°	50-55+60°
HS-590-GV-3	140-160	130-140	100-120
	30-40		
WARD-LA FRANCE	See Continental, page 110 See Cummins, page 105		

TRUCK DATA

OSHKOSH

ENGINE	SIZE	OIL	C.P.	IGNITION							VALVES							
	Number of Cylinders, Bore and Stroke	Normal Oil Pressure, Lb. at M.P.H. or R.P.M.	Compression, psi at Cranking Speed	Distributor Rotation	Cam Angle (deg.)	Breaker Point Gap	Breaker Arm Tension (oz.)	Spark Occurs °TC B-Before A-After	Spark Occurs Flywheel Teeth °TC B-Before A-After		Intake Valve Opens B-Before A-After °TC	Flywheel Teeth °TC	Intake Tappet Clearance for Valve Timing	Operating Tappet Clearance (Hot unless noted) Intake	Exhaust	Seat Angle (deg.)	Face Angle (deg.)	Guide Clearance
Con B-6427	6-4 1/16 x4 7/8	40–50	115	Cw	31–37	.022	17–21	(a)	.....		16B	.....	.017	.017	.022	30	.....	.002–.0036
Con TD-6427	6-4 1/16 x4 7/8	40–60	375								20B	.....		.017	.022	.....	.....	.....
Con T-6427	6-4 1/16 x4 7/8	40–60	115	Ccw	31–37	.022	17–21	(b)	.....		20B	.....	.017	.018	.022	.....	.....	.....
Con R-6513	6-4 1/16 x5 1/2	50–60	120								19B	.....		.018	.024	.....	.....	.....
Con R-6572	6-4 3/4 x5 1/2	50–60	120								19B	.....		.018	.024	.....	.....	.....
Con R-6602	6-4 7/8 x5 1/2	50–60	120								17B	.....		.018	.024	.....	.....	.....
Cum HB-600	6-4 1/2 x6	30–50–1800					Diesel				5B	.....		.014	.022	30	30	.....
Cum HRFB-600	6-5 1/2 x6	30–50–2000					Diesel				5B	.....		.014	.022	30	30	.....
Cum NHB-600	6-5 1/2 x6	30–50–2100					Diesel				20B	.....		.014	.027	30	30	.....
Cum NHRBS-600	6-5 1/2 x6	30–50–2100					Diesel				55B	.....		.014	.027	30	30	.....
Wau 145-EKB	6-5 1/4 x6	40–2400	120	Cw	31–37	.018					15B	6B	.064C	.013C	.030C	(d)	.....	(e)
H-S 1091-E-1	6-5 3/4 x7	60–1000	110	Ccw	27–37	.021	17–21				10B	.....	.....	.021	.031	30	.....	

ENGINE	SPARK PLUGS				PISTONS, RINGS				VALVE SPRINGS				CAM	
	Make	Type	Size	Gap	Piston Clearance	Oil Ring Side Clearance	Comp. Ring Side Clearance	Ring End Gap	Valve Open Pressure (Av. lb.)	Valve Open Length—in.	Valve Closed Pressure (Av. lb.)	Valve Closed Length—in.	End Play	Bushing Clearance
Con B-6427	CH	S Com	18	.025	.005	.003–.0045	.003–.0045	.013–.023	144	1.316	69	1.617	.007	.....
Con, T & TD-6427	CH	S Com	18	.025	.005	.003–.0045	.003–.0045	.013–.023	I. 61 O. 130	1.016 1.110	29 69	1.453 1.548	.007	.....
Con R-6513, R-6602	CH	S Com	18	.025	.0055	.002	.002	.015	I. 90 O. 160	1.367 1.617	38 67	1.867 2.117	.005	.0020
Con R-6572	CH	S Com	18	.025	.0055	.002	.002	.015	173	1.75	78	2.25	.005	.0020
Cum HB-600, HRFB-600	.....	Diesels		.....	.....	.....	.....	.....	179–198	2 5/8	110–122	2 1/16	.....	.....
Cum NH engines	.....	Diesels		.....	.....	.....	.....	.....	104–114	1 13/16	74–82	2 1/16	.....	.....
Wau 145-EKB	CH	H-9	14	.025	.....	.....	.....	.....	I. 100 O. 158	2 1/16 2 5/16	42 67	2 1/16 2 5/16	.....	.....
H-S 1091-E-1	CH	.....	18	.016	.....	.002	.004	.016	I. 110 O. 143	1.9 2	48 74	2.4 2.5	.005	.002

NOTES

a—10°–14° @ 1700.
b—15°–17° @ 1500.
c—To check timing, set lash at value given at valve, then valve should open at TDC.
d—Intake 30, exhaust 45.
e—Intake .0015–.0035, exhaust .0025–.0045.
f—Model WA-906-½.
g—Auxiliary transmission, 6¾ pt.
h—¾", 35–40; ⅞", 70–75; 1½", 90–100; 1⅛", 130–140; 5⅛", 145–155.
i—⅞", 20–25; 5/16", 35–40; 1/16", 70–75; 1½", 85–95; 1⅛", 100–110.
j—Long 175 lb. ft., short 150 lb. ft.
k—Large 230–250 lb., small 30–40 lb.
l—Straight mineral oil gear lube; same for front axle, auxiliary transmission, and transfer case.
m—Hypoid gear lube, front and rear axle.

ENGINE	TENSIONS		
	Cylinder Head (Lbs. ft.)	Main Bearings (Lbs. ft.)	Connecting Rod Bearings (Lbs. ft.)
Continental engines	(h)	(i)	(i)
Cummins engines	See Cummins, page 104		
Wau 145GKB	(j)	267–275	87–69
HS 1091-G-1	(k)	180–200	130–140

MODEL	STANDARD ENGINE
OSHKOSH	
W-214, W-314	Con B-6427
W-214-D, W-314D	Con TD-6427
W-414	Con T-6427
W-614, W-1700-C, W-1700 CR	Con R-6513
W-814, W-824	Con R-6572
W-815, W-825	Con R-6602
W-816, W-826	Cum HB-600
W-817, W-827, WA-906	Cum HRFB-600
W-2211	Wau 145GKB
WA-2208	Cum NH-600
W-2206	H-S 1091-G-1
W-2209	Cum NHRBS-600

ENGINE	GENERATOR			STARTER						RODS, PINS			C. SHAFT		
	Brush Spring Tension	Max. Charge Rate	Voltage	Brush Spring Tension	Amp. (No Load)	Voltage (No Load)	Torque (Lock)	Amp. (Lock)	Voltage (Lock)	Pin Clearance	Rod Bearing Clearance	Rod Side Clearance	End Play	Main Bearing Clearance	End Thrust Carried on
Con. B6427, TD6427, T6427	20	....	12	....	....	....	....	....	....	.0004	.002	.008	.0065	.0025	....
Con. R series	20	....	12	....	....	....	....	....	....	.0004	.003	....	.005	.003	....
H-S 1091-E-1	71-76	....	12	....	....	....	....	....	....	.007	.0035	.008	....	.004	....

MODEL	ENGINE	BATTERY					FRONT END				CAPACITIES				FAN BELT		
		Amp. Hour Capacity	Number of Plates	Terminal Grounded	S.A.E. Group Number	A.A.B.M. Group Number	Toe-In (In.)	Camber (Deg.)	Caster (Deg.)	King Pin Slant (Deg.)	Engine Oil (Qt.)	Transmission Oil (Pt.)	Rear Axle Oil (Pt.)	Cooling System Capacity (Qt.)	Circumference (In.)	Width (In.)	Angle of "V" (Deg.)
W-214, W-314	Con B6427	153	57	Pos	4H	4H	0–1/8	1	1	3	8	16g	....	40	....	....	....
W-214D, W-314-D	Con TD6427	200	87	Pos	7D	7D	0–1/8	1	1	3	8	16g	....	40	....	....	....
W-414	Con T6427	153	57	Pos	4H	4H	0–1/8	1	1	3	8	24g	....	40	....	....	....
W-614, W-1700-C	Con R6513	153	57	Pos	4H	4H	0–1/8	1	1	3	10	24g	....	54	....	....	....
W-814, W-824	Con R6572	153	57	Pos	4H	4H	0–1/8	1	1	3	10	24g	....	54	....	....	....
W-815, W-825	Con R6602	153	57	Pos	4H	4H	0–1/8	1	1	3	10	24g	....	54	....	....	....
W-816, W-826	Cum HB600	200	87	Pos	7D	7D	0–1/8	1	1	3	35	24g	....	42	....	....	....
W-817, W-827, WA906	Cum HRFB600	200	87	Pos	7D	7D	0–1/8	1f	1	3	35	....	....	42	....	....	....
W-2211	Wau 145GKB	153	57	Pos	4H	4H	0–1/8	1/2	1	3	16	....	....	80	....	....	....
WA-2208	Cum NH600	200	87	Pos	7D	7D	0–1/8	1/2	1	3	35	....	....	66	....	....	....
W-2206	H-S 1091-G-1	200	87	Pos	7D	7D	0–1/8	1/2	1	3	16	....	....	75	....	....	....
W-2209	Cum NHRBS-600	200	87	Pos	7D	7D	0–1/8	1/2	1	3	35	....	....	66	....	....	....
W-825 (6x6)	Con R-6602	153	57	Pos	4H	4H	0–1/8	1	1	3	10	24g	....	54	....	....	....
W-826 (6x6)	Cum HB600	200	87	Pos	7D	7D	0–1/8	1	1	3	35	24g	....	42	....	....	....
W-1700-CR	Con R6513	153	57	Pos	4H	4H	0–1/8	1	1	3	10	24g	....	54	....	....	....

MODEL	LUBRICATION						
	Engine	Transmission		Rear Axle		Steering Gear	
	Viscosity and Temperature Range	Summer	Winter	Summer	Winter	Summer	Winter
W-214, W-314, W-214-D, W-314-D, W-414	40 above 50°; 20 below 50°	140(1)	90(1)	140m	90m	140	140
W-614, W-1700-C, W-814, W-824	30 above 32°; 20, 0° to 32°; 10 below 0°	140(1)	90(1)	140m	90m	140	140
W-815, W-825, W-816, W-826	30 above 80°; 20, 20° to 80°; 10 below 20°	140(1)	90(1)	140m	90m	140	140
W-817, W-827, WA-906, W-2211, 15-6KB	50 above 70°; 40, 50° to 70°; 20, 30° to 50°; 20W, 10° to 30°	140(1)	90(1)	140(1)	90(1)	140	140
WA-2208, NH-600	30 above 80°; 20, 20° to 80°; 10 below 20°	140(1)	90(1)	140(1)	90(1)	140	140
W-2206, 1091-G-1	30 above 32°; 20 below 32°	140(1)	90(1)	140(1)	90(1)	140	140
W-2209, NHRBS-600	30 above 80°; 20° to 80°; 10 below 20°	140(1)	90(1)	140(1)	90(1)	140	140
W-825-6X6, R6602	30 above 32°; 20, 0° to 32°; 10 below 0	140(1)	90(1)	140m	90m	140	140
W-826-6X6, HB-600	30 above 80°; 20, 20° to 80°; 10 below 20°	140(1)	90(1)	140m	90m	140	140
W-1700-CR, R-6513	30 above 32°; 20, 0° to 32°; 10 below 0	140(1)	90(1)	140m	90m	140	140

TRUCK DATA

PETERBILT WALTER

ENGINE	SIZE	OIL	C.P.	IGNITION						VALVES								
	Number of Cylinders, Bore and Stroke	Normal Oil Pressure, Lb. at M.P.H. or R.P.M.	Compression, psi at Cranking Speed	Distributor Rotation	Cam Angle (deg.)	Breaker Point Gap	Breaker Arm Tension (oz.)	Spark Occurs °TC B-Before A-After	Spark Occurs Flywheel Teeth °TC B-Before A-After	Intake Valve Opens B-Before A-After °TC	Intake Valve Opens B-Before A-After Flywheel Teeth °TC	Intake Tappet Clearance for Valve Timing	Operating Tappet Clearance (Hot unless noted) Intake	Operating Tappet Clearance (Hot unless noted) Exhaust	Seat Angle (deg.)	Face Angle (deg.)	Guide Clearance
PETERBILT																		
All models	See Cummins engines, page 105. Buda engines, page 104. Hall-Scott engines, page 106.																	
WALTER																		
Wau 6MZA	6-4¼x4¼	40–1500	110	Cw	.....	.018	.....	.....	.....	8B	3B	.008	.009C	.019C	.....	.....	.....
Wau 140GZ	6-4½x5½	40a	90–95	Cw	.....	.018	18–23	TC	.....	15B	6B	.....	.013C	.025C	(b)	.....	(c)
Wau 145GK	6-5¼x6	40–1500	85–90	Cw	.....	.018	18–23	TC	.....	15B	6B	.....	.013C	.025C	(b)	.....	(c)
Wau 145GKB	6-5¼x6	40a	95–100	Cw	.....	.018	18–23	TC	.....	15B	6B	.....	.013C	.025C	(b)	.....	(c)
Cum NHB-600	6-5½x6	30a	.....	.....	.....	Diesel	.....	.....	.....	29B	.....	.....	.014	.027	.....	.....	.....
Le Roi H-540	6-4½x4¼	45a	125–140	Ccw	.....	.018	.....	35B	.....	TC	.....	.....	.013	.013	45	44	.....

ENGINE	SPARK PLUGS				PISTONS, RINGS				VALVE SPRINGS				CAM	
	Make	Type	Size	Gap	Piston Clearance	Oil Ring Side Clearance	Comp. Ring Side Clearance	Ring End Gap	Valve Open Pressure (Av. lb.)	Valve Open Length—in.	Valve Closed Pressure (Av. lb.)	Valve Closed Length—in.	End Play	Bushing Clearance
PETERBILT														
All models	See Cummins engines, page 105. Buda engines, page 104. Hall-Scott engines, page 106.													
WALTER														
Wau 6MZA	Ch	J8	14	.025	.004	.001–.0025	.0015–.003	.013–.023	101	1 11/16	64	2 11/16	.....	.....
Wau 140GZ	Ch	J8	14	.025	.0065	.0015–.003	.002–.0035	.030	O. 127 I. 70	1 11/16 1 7/16	67 30	2 1/16 1 11/16	.....	.....
Wau 145GK	Ch	J8	14	.025	.0075	.007–.011	.003–.0045	.030–.040	O. 104 I. 70	2 5/16 2 1/16	67 42	2 1/16 2 1/16	.....	.....
Wau 145GKB	Ch	J8	14	.025	.0075	.007–.011	.003–.0045	.030–.040	O. 104 I. 70	2 5/16 2 1/16	67 42	2 1/16 2 1/16	.....	.....
Cummins NHB-600	.....	.....	.....	.....	See Cummins engines, page 117.									
Le Roi H540	Ch	J8	14	.027	.0025	.001–.003	.0015–.0035	.012d	106	1.6	53	2.0	.....	.....

NOTES

PETERBILT

a—Butane and gasoline.
b—Models 281, 281 c.o.e., 351 and 351 c.o.e. also available with HS590.
c—2 batteries.
d—Each axle.

WALTER

a—At governed speed.
b—Intake 30, exhaust 45.
c—Intake .0015–.0035, exhaust .0025–.0045.
d—Minimum.
e—Long 175, short 150.

ENGINE	TENSIONS		
	Cylinder Head (Lbs. ft.)	Main Bearings (Lbs. ft.)	Connecting Rod Bearings (Lbs. ft.)
WALTER			
Wau 6MZA	73–75	95–100	67–69
Wau 140GZ	175	129–133	95–100
Wau 145GK, 145GKB	(e)	267–275	67–69
Le Roi H-540	90	95	60

MODEL	ENGINE	
	STANDARD	OPTIONAL
PETERBILT		
All models	Cum NHB, NT6B, NHBS, NHRBS	HS1091a, Buda 6DAS-844b
WALTER		
FZM	WAU 6MZA	
FEK, AEB	WAU 140 GZ	
FGB	WAU 145 GK	
AGB, AGR	WAU 145 GKB	WAU 145 GKB
ACB, ACR, ACU	CUM NHB-600	WAU 145 GK
ARB	LE ROI H-540	

ENGINE	GENERATOR			STARTER						RODS, PINS			C. SHAFT		
	Brush Spring Tension	Max. Charge Rate	Voltage	Brush Spring Tension	Amp. (No Load)	Voltage (No Load)	Torque (Lock)	Amp. (Lock)	Voltage (Lock)	Pin Clearance	Rod Bearing Clearance	Rod Side Clearance	End Play	Main Bearing Clearance	End Thrust Carried on
PETERBILT															
All models	See Cummins engines, page 105. Buda engines, page 104. Hall-Scott engines, page 106.														
WALTER															
Wau 6MZA	....	....	12	....	....	....	....	....	....	....	.001–.003	.005–.0010	....	.0015–.0035	....
Wau 140GZ	....	....	12	....	....	....	....	....	....	.0011–.003	.001–.003	.010–.016	.003–.007	.002–.004	....
Wau 145GK, 145GKB	....	....	12	....	....	....	....	....	....	.0005–.0013	.001–.003	.010–.016	.003–.007	.002–.004	....
Le Roi H-540	....	....	12	....	....	....	....	....	....	.001–.003	.0011–.0036	.004–.008	....	.0014–.0044	....

MODEL	ENGINE	BATTERY					FRONT END				CAPACITIES				FAN BELT		
		Amp. Hour Capacity	Number of Plates	Terminal Grounded	S.A.E. Group Number	A.A.B.M. Group Number	Toe-In (In.)	Camber (Deg.)	Caster (Deg.)	King Pin Slant (Deg.)	Engine Oil (Qt.)	Transmission Oil (Pt.)	Rear Axle Oil (Pt.)	Cooling System Capacity (Qt.)	Circumference (In.)	Width (In.)	Angle of "V" (Deg.)
PETERBILT																	
260, 261, 281 c.o.e., 280 c.o.e.		152c	19	Pos	4D	....	0–1/8	1	3	5 1/2	20	18	26	60	See engine data, pages 104, 105, 106.		
350, 351, 351 c.o.e., 350 c.o.e.		152c	19	Pos	4D	....	0–1/8	1	3	5 1/2	20	18	14d	60			
360, 380 c.o.e.		152c	19	Pos	4D	....	0–1/8	1	2	5 1/2	20	18	20d	60			
370, 381, 390		152c	19	Pos	4D	....	0–1/8	1	1 1/2	8	20	18	20d	60			
WALTER																	
FZM	Wau 6MZA	150	17	Pos	4D	4D	0–1/8	1 1/2	5	2	8	26	5	32	....	....	....
FEK, AEB	Wau 140GZ	150	17	Pos	4D	4D	0–1/8	1 1/2	5	2	10	33	7	57	....	....	....
FGB	Wau 145GK	150	17	Pos	4D	4D	0–1/8	1 1/2	5	2	18	33	7	57	....	....	....
AGB, AGR	Wau 145GKB	150	17	Pos	4D	4D	0–1/8	1 1/2	5	2	18	33	7	57	....	....	....
ACB, ACR, ACU	Cum NHB 600	150	17	Pos	4D	4D	0–1/8	1 1/2	5	2	28	33	7	57	....	....	....
ARB	Le Roi H 540	150	17	Pos	4D	4D	0–1/8	1 1/2	5	2	12	33	7	57	....	....	....

MODEL WITH STANDARD ENGINE	LUBRICATION									
	Engine			Transmission		Rear Axle		Steering Gear	
	Viscosity and Temperature Range			Summer	Winter	Summer	Winter	Summer	Winter
PETERBILT									
All models	30 above 90°	20 @ 60° to 90°	10 @ 10° to 60°	140	90	140	90	140	90
WALTER									
All gasoline models	30 Summer		20 Winter	140EP	140EP	140EP	140EP	140EP	140EP
All diesel models	20 Summer		10 Winter	140EP	140EP	140EP	140EP	140EP	140EP

TRUCK DATA

REO

ENGINE	SIZE	OIL	C.P.	IGNITION						VALVES							
	Number of Cylinders, Bore and Stroke	Normal Oil Pressure, Lb. at M.P.H. or R.P.M.	Compression, psi at Cranking Speed	Distributor Rotation	Cam Angle (deg.)	Breaker Point Gap	Breaker Arm Tension (oz.)	Spark Occurs °TC B-Before A-After	Spark Occurs Flywheel Teeth °TC B-Before A-After	Intake Valve Opens B-Before A-After °TC	Intake Valve Opens B-Before A-After Flywheel Teeth °TC	Intake Tappet Clearance for Valve Timing	Operating Tappet Clearance (Hot unless noted) Intake	Operating Tappet Clearance (Hot unless noted) Exhaust	Seat Angle (deg.)	Face Angle (deg.)	Guide Clearance
OA-255	6-3½x4½	Min. 35–2000b	130	Cw	31–37	(c) 17–21		8B		3		.015	.015	.015	30	29½	(d)
OA-255 LPG	6-3½x4½	35–2000b	140	Cw	31–37	(c) 17–21		6B		3		.015	.015	.015	30	29½	(d)
OA-292	6-3⅞x4½	35–2000b	125	Cw	31–37	(c) 17–21		4B		3		.015	.015	.015	30	29½	(d)
OA-331	6-4⅛x4½	35–2000b	125	Cw	31–37	(c) 17–21		2B		3		.015	.015	.015	30	29½	(d)
OA-331 LPG	6-4⅛x4½	35–2000b	160	Cw	31–37	(c) 17–21		6B		3		.015	.015	.015	30	29½	(d)
OH-160	6-4⅛x4½	35–2000b	130	Cw	31–37	(c) 17–21		5B		23B		.020	.020	.020	30	29½	(d)
OH-160 LPG	6-4⅛x4½	35–2000b	160	Cw	31–37	(c) 17–21		8B		23B		.020	.020	.020	30	29½	(d)
OV-195	8-3⅞x4½	35–2000b	145	Cw	26–33	.016	19–23	2B		23B		.020	.020	.020	30	29½	(d)
OV-220	8-4⅛x4½	35–2000b	145	Cw	26–33	.016	19–23	6B		23B		.020	.020	.020	30	29½	(d)
OV-220 LPG	8-4⅛x4½	35–2000b	165	Cw	26–33	.016	19–23	6B		23B		.020	.020	.020	30	29½	(d)

ENGINE	SPARK PLUGS				PISTONS, RINGS				VALVE SPRINGS				CAM	
	Make	Type	Size	Gap	Piston Clearance	Oil Ring Side Clearance	Comp. Ring Side Clearance	Ring End Gap	Valve Open Pressure (Av. lb.)	Valve Open Length—in.	Valve Closed Pressure (Av. lb.)	Valve Closed Length—in.	End Play	Bushing Clearance
OA-255, OA-292, OA-331	CH	J6	14	.025	.0032	.002–.003	(e)	.012–.022	183f	1.360	67	1.780	(h)	(i)
OA-255 LPG, OA-331 LPG					.0032	.002–.003	(e)	.012–.022	183g	1.163	67	1.583	(h)	(i)
OH-160, OH-160 LPG	CH	J6	14	.020	.0014	.002–.003	(e)	.012–.022	183f	1.360	67	1.780	(h)	(i)
OV-195, OV-220	CH	H9	14	.025	.002	.002–.003	(e)	.012–.022	183f	1.360	67	1.780	(h)	(i)
OV-220 LPG					.002	.002–.003	(e)	.012–.022	183g	1.163	67	1.583	(h)	(i)

NOTES

a—Not available on F-206.
b—Max. 60–3200.
c—.018–.023.
d—.001–.0025.
e—Top compression, .003–.005; 2nd compression, .002–.003.
f—Intake and exhaust.
g—Exhaust only. Intake same as standard engine.
h—.004–.012.
i—.0012–.003.
k—Selective hand press fit at room temperature.
l—Selective finger press fit at room temperature.
m—Minimum tension.
n—Total clearance with two rods per pin, .008–.015.
o—Each axle.
p—Dual belt. Air compressor drive, 46 in. circumference, ⅞ in. width, 36° angle.
q—Generator and air compressor dual drive, 53½ in., .500 S.A.E., 36°.
r—140 gear lube above 32°, 50 HD engine oil below 32°.
s—140 heavy gear oil above 0°, 90 heavy gear oil below 0°.
t—Gear lube.
u—140 gear lube with power steering.

ENGINE	TENSIONS		
	Cylinder Head (Lbs. ft.)	Main Bearings (Lbs. ft.)	Connecting Rod Bearings (Lbs. ft.)
All Reo engines Cummins	100–105	85–90 (See page 104.)	65–70

MODEL	ENGINE	
	STANDARD	OPTIONAL
F-20, F-120	Own 255 O.A.	Own 292 O.A., Own 255 O.A. LPG
F-22, F-122	Own 292 O.A.	Own 331 O.A., 331 O.A. LPG
F-22-R, F-226, F-226 (6X6), F-206, F-216	Own 331 O.A.	Own OH 160 (a), 331 O.A. LPG, OH 160 LPG (a)
F-50, F-506, F-50 (6X2), F-506M, F-536, F-536M	Own OH 160	Own OH 160 LPG
A-600, A-700, A-603, AC-603, A-703, AC-703, A-620, A-630, A-730, A-623, A-633, A-733	Own OV 195	Own OV 220, OV 220 LPG
A-800, A-830-OH	Own OV 220	Own OV 220 LPG
F-50-D, F-506-D, F-536-D	Cum JT-6-B	

ENGINE	GENERATOR			STARTER						RODS, PINS			C. SHAFT		
	Brush Spring Tension	Max. Charge Rate	Voltage	Brush Spring Tension	Amp. (No Load)	Voltage (No Load)	Torque (Lock)	Amp. (Lock)	Voltage (Lock)	Pin Clearance	Rod Bearing Clearance	Rod Side Clearance	End Play	Main Bearing Clearance	End Thrust Carried on
REO															
OA Series	28	45	8	24m	70	5.65	13.5	570	3.15	(k)	.001-.0032	.011-.016	.004-.007	.0008-.0033	FMB
OH 160, OH 160 LPG	28	45	8	24m	70	5.65	13.5	570	3.15	(l)	.001-.0032	.011-.016	.004-.007	.001-.0035	FMB
OV Series	20	40	13	24m	75	11.25	29	615	5.85	(l)	.001-.0032	(n)	.006-.010	.0012-.0039	RMB

MODEL	ENGINE	BATTERY					FRONT END				CAPACITIES				FAN BELT		
		Amp. Hour Capacity	Number of Plates	Terminal Grounded	S.A.E. Group Number	A.A.B.M. Group Number	Toe-In (In.)	Camber (Deg.)	Caster (Deg.)	King Pin Slant (Deg.)	Engine Oil (Qt.)	Transmission Oil (Pt.)	Rear Axle Oil (Pt.)	Cooling System Capacity (Qt.)	Circumference (In.)	Width (In.)	Angle of "V" (Deg.)
REO																	
F-20	OA-255	136	17	Pos	3		0-1/8	1	2	8	8	8	20	20	54	3/4	36
F-22	OA-292	136	17	Pos	3		0-1/8	1	2	8	8	11	20	24	56p	13/16	36
F-22-R	OA-331	136	17	Pos	3		0-1/8	1	2	8	8	11	23	24	56p	13/16	36
F-226	OA-331	136	17	Pos	3		0-1/8	1	1½	5½	8	11	24	24	56p	13/16	36
F-226 (6X6)	OA-331	136	17	Pos	3		1/16-1/8	0	5-7	8	8	11	24	24	56p	13/16	36
F-206	OA-331	136	17	Pos	3										56p	13/16	36
F-216	OA-331	136	17	Pos	3										56p	13/16	36
F-50	OH-160	153	19	Pos	4		0-1/8	1	1½	5½	8	12	31	26	56p	13/16	36
F-506	OH-160	153	19	Pos	4		0-1/8	1	1½	5½	8	18	24o	26	56p	13/16	36
F-50 (6X2)	OH-160	153	19	Pos	4		0-1/8	1	1½	5½	8	12	29	26	56p	13/16	36
F-506-M	OH-160	153	19	Pos	4										56p	13/16	36
F-536	OH-160	153	19	Pos	4										56p	13/16	36
F-536-M	OH-160	153	19	Pos	4		1/16-1/8	1	3	8	8	18	31o	26	56p	13/16	36
A-600	OV-195	70	13	Pos			0-1/8	1	1½	5½	8	17	31	37½	47q	1	36
A-603, A-623, A-723	OV-195	70	13	Pos			0-1/8	1	1½	5½	8	17	29	37½	47q	1	36
A-620, A-703, A-720	OV-195	70	13	Pos			0-1/8	1	1½	5½	8	17	29	37½	47q	1	36
A-630, A-633	OV-195	70	13	Pos			0-1/8	1	1½	5½	8	17	24o	37½	47q	1	36
A-700	OV-195	70	13	Pos			0-1/8	1	1½	5½	8	17	30	37½	47q	1	36
A-730, A-733	OV-195	70	13	Pos			0-1/8	1	1½	5½	8	17	23o	37½	47q	1	36
A-800, A-830-OH	OV-220	70	13	Pos											47q	1	36
F-50-D, F-506-D, F-536-D	Cum JT-6-B						0-1/8	1	1½	5½							

MODEL WITH STANDARD ENGINE	LUBRICATION									
	Engine				Transmission		Rear Axle		Steering Gear	
	Viscosity and Temperature Range				Summer	Winter	Summer	Winter	Summer	Winter
REO										
F-226-M, F-536-M	30 above 32°	All engines 20W @ 20° to 32° 5W below −10°	10W @	−10° to 20°	(r)	(r)	(s)	(s)	(u)	(u)
All others					(r)	(r)	(s)	(s)	90t	90t

TRUCK DATA

STUDEBAKER DIVCO

ENGINE	SIZE	OIL	C.P.	IGNITION						VALVES								
	Number of Cylinders, Bore and Stroke	Normal Oil Pressure, Lb. at M.P.H. or R.P.M.	Compression, psi at Cranking Speed	Distributor Rotation	Cam Angle (deg.)	Breaker Point Gap	Breaker Arm Tension (oz.)	Spark Occurs °TC B-Before A-After	Spark Occurs Flywheel Teeth °TC B-Before A-After	Intake Valve Opens B-Before A-After °TC	Intake Valve Opens B-Before A-After Flywheel Teeth °TC	Intake Tappet Clearance for Valve Timing	Operating Tappet Clearance (Hot unless noted) Intake	Operating Tappet Clearance (Hot unless noted) Exhaust	Seat Angle (deg.)	Face Angle (deg.)	Guide Clearance
STUDEBAKER																		
1E	6-3x4⅝	All	130–150a	Ccw	38–40	.018–.022	17–20	2°B	....	15B	....	.020	.016C	.016C	45	45	.0015–.0035
2E	8-3⅛x3 11/16	40@	130–150a	Ccw	28–34	(b)	19–23	4Bc	....	19B	....	.030	.025–.027C	.025–.027C	45	45	.0015–.0035
3E	8-3⅛x3¼	1400–1600	130–150a	Ccw	28–34	(b)	19–23	4°B	....	11B	....	.030	.025–.027C	.025–.027C	45	45	.0015–.0035
4E	6-3⅛x4¾	....	130–150a	Ccw	31–37	.022	17–21	2°B	....	15B	....	.020	.016C	.016C	45	45	.0015–.0035
5E	8-3⅛x3¼	....	130–150a	Ccw	28–34	(b)	19–23	4°B	....	11B	....	.030	.025–.027C	.025–.027C	45	45	.0015–.0035
DIVCO																		
Con F4162	4-3⅛x4⅜	(a)	110	Ccw	25–34	.020	17–21	10B	....	2B	....	....	.014	.016	I-30	....	.00175
															E-45	....	.00375
Con F4162 Super & Spec. Super	4-3⅛x4⅜	(a)	110	Ccw	25–34	.020	17–21	9B	....	2B	....	....	.014	.016	I-30	....	.00175
															E-45	....	.00375
Herc QXD3-AS, QXD3-AT	6-3⅞x4½	25–30	120	Cw	31–37	.022	17–21	4B	....	5B	....	.008	.008	.010	30	....	.00125
Divco Super 6	6-3½x4⅜	(b)	120	Cw	31–37	.018–.024	....	4A	....	12B	....	.0225	.012	.016	I-30	29	.002
															E-45	44	.004

ENGINE	SPARK PLUGS				PISTONS, RINGS				VALVE SPRINGS				CAM	
									Valve Open		Valve Closed			
	Make	Type	Size	Gap	Piston Clearance	Oil Ring Side Clearance	Comp. Ring Side Clearance	Ring End Gap	Pressure (Av. lb.)	Length—in.	Pressure (Av. lb.)	Length—in.	End Play	Bushing Clearance
STUDEBAKER														
1E	CH	J7	14mm	.028–.033	(h)	.0015–.005	.002–.005	.007–.017	93–103	1 1/16	....	....	.003–.006	(l)
2E, 3E	CH	H10	14mm	.033–.038	(i)	.0015–.005	.002–.005	.008–.016	105–115k	1 11/16k	....	....	.003–.006	(m)
4E	CH	J7	14mm	.028–.033	(j)	.0015–.005	.002–.005	.008–.016	125–135	1¾	....	....	.003–.006	(l)
DIVCO														
Con F4162, Std. & Opts.	AC/CH	86, 8 Com	18	.035	.002	.0015	.0015	.010	100	1 11/16	50	1 11/16	....	.00275
Her QXD3-AS & AT	AC/CH	48 Com J-11-64	14	.028	.0015	.0015 .003	.0015 .003	.007–.015	57–41	1.281	19	1.656	(c)	.0020
Divco Super 6	AC/CH	46 Com J-11-64	14	.028	.0020	.0025–.004	.0025–.004	.007–.015	144	1 7/16	56	1 13/16	.004–.006	....

NOTES

STUDEBAKER

a—@ 150 rpm.
b—.013–.018 until after wear in, then .010–.015.
c—8° before engine number 2E-8927.
d—No load, ⅛°.
e—Model 2E12, 5½ pts.
f—Model 2E11, 5½ pts.
g—2-speed, 14 pts.
h—11–16 lb. pull on .002 in. feeler 1 in. wide (on thrust side).
i—8 to 13 lb. pull on .002 in. feeler 1 in. wide.
j—14 to 19 lb. pull on .002 in. feeler 1 in. wide.
k—When equipped with roto-caps (exhaust only) pressure 106–116, length 1 11/16 in.
l—No. 1: .0007–.0022; remainder: .0010–.0027.
m—No. 1: .00075–.00225; remainder: .001–.00275.
n—Minimum.

DIVCO

a—Min. 6, max. 40.
b—12 @ idle, 30 @ governed speed.
c—Adjust screw.
d—Caster when loaded 1¼–2½.
e—5½ or 7½.
f—Front 70, center & rear 60.

ENGINE	TENSIONS		
	Cylinder Head (Lbs. ft.)	Main Bearings (Lbs. ft.)	Connecting Rod Bearings (Lbs. ft.)
STUDEBAKER			
1E	46–50	85–95	28–32
2E, 3E, 5E	60–65	85–95	52–54
4E	80–85	85–95	52–54
DIVCO			
Con F4162 engines	65–70	100–110	45–50
Her QXD 3AS & AT	60	(f)	39
Divco Super 6	65–70	66–70	52–56

MODEL	ENGINE	
	STANDARD	OPTIONAL
STUDEBAKER		
2E5-112, 2E5-122	Own 1E	
2E7, 2E12	Own 2E	
2E13, 2E28	Own 3E	5E
2E6, 2E11, 2E14	Own 4E	
2E38	Own 5E	
DIVCO		
11, 12, 13	Con F4162	Con F4162 Super or Spec. Super.
384	Con F4162 "Super"	Con F4162 Spec. Super.
15, 214, 224, 334, 344, 374	Her QXD 3 AS	Her QXD 3 AT or Divco Super 6
42, 52	Divco Super 6	

ENGINE	GENERATOR			STARTER						RODS, PINS			C. SHAFT		
	Brush Spring Tension	Max. Charge Rate	Voltage	Brush Spring Tension	Amp. (No Load)	Voltage (No Load)	Torque (Lock)	Amp. (Lock)	Voltage (Lock)	Pin Clearance	Rod Bearing Clearance	Rod Side Clearance	End Play	Main Bearing Clearance	End Thrust Carried on
STUDEBAKER															
1E	18-38	30	12	42-53	50	10	8	210	4	.0002	.00155	.007	.0045	.0015	No. 1
2E, 3E, 5E	24-32	30	12	35n	70	10.4	12	410	5.8	.0002	.00155	.0105	.0045	.0015	No. 1
4E	24-32	30	12	35n	70	10.4	12	410	5.8	.0002	.00155	.007	.0045	.0015	No. 1
DIVCO															
Con F4162	25	25	7-7.2	24-28	70	5.65	11	550	3.25	.0002	.0015-.002	.005-.010	.005-.007	.0015-.003	F. Mn.
Con F4162 Super & Spec. Super	25	25	7-7.2	24-28	70	5.65	11	550	3.25	.0002	.0015-.002	.005-.010	.005-.007	.0015-.002	C. Mn.
Her QXD3-AS & AT	25	25	7-7.2	24-28	70	5.65	11	550	3.25	.0002	.001-.0015	.005-.010	.002-.004	.002-.003	R. Mn.
Divco Super 6	25	25	7-7.2	24-28	65	5.0	16	600	3.0	.0002 Piston	.001-.0015	.005-.015	.003-.008	.001-.0015	C. Mn.

MODEL	ENGINE	BATTERY					FRONT END				CAPACITIES				FAN BELT		
		Amp. Hour Capacity	Number of Plates	Terminal Grounded	S.A.E. Group Number	A.A.B.M. Group Number	Toe-In (In.)	Camber (Deg.)	Caster (Deg.)	King Pin Slant (Deg.)	Engine Oil (Qt.)	Transmission Oil (Pt.)	Rear Axle Oil (Pt.)	Cooling System Capacity (Qt.)	Circumference (In.)	Width (In.)	Angle of "V" (Deg.)
STUDEBAKER		@20															
2E5	Own 1E	50	9	Neg	2SM		1/16-1/8	0-1	1½d	7½	5	2½	3	10½	38	11/16	40-44
2E7, 2E12	Own 2E	50	9	Neg	2SM		1/16-1/8	0-1	1½d	7½	5	2½	3e	20¼	59	5/8	38°
2E13	Own 3E	50	9	Neg	2SM		1/16-1/8	0-1	2d	8	5	6	5	20¾	59	5/8	38°
2E6, 2E11	Own 4E	50	9	Neg	2SM		1/16-1/8	0-1	1½d	7½	6	2½	(f)	15½	42	11/16	40-42
2E14	Own 4E	50	9	Neg	2SM		1/16-1/8	0-1	2d	8	6	8	5	18	42	11/16	40-42
2E28	Own 3E	50	9	Neg	2SM		1/16-1/8	0-1	2¼d	8	5	8	7	20¾	59	5/8	38°
2E38	Own 5E	50	9	Neg	2SM		1/16-1/8	0-1	2¼d	8	5	8	18½g	20¾	59	5/8	38°
DIVCO																	
11, 12, 13	Std. Con F4162	105	15	Pos			1/16-3/16	1	1½	8	3½	5	5½	11	51½	¼	42
11, 12, 13	Super& Spec. Super Con F4162	105	15	Pos			1/16-3/16	1	1½	8	3½	5	5½	11	50	5/8	36
384	Std. Con. F4162 Super	105	15	Pos			1/16-3/16	1	(d)	8	3½	5	5½	11	50	5/8	36
384	Spec. Con F4162 Spec. Super	105	15	Pos			1/16-3/16	1	(d)	8	3½	5	5½	11	50		36
Models with	Her QXD3-AS & AT	105	15	Pos			1/16-3/16	1	(d)	8	5	5	(e)	12½	47½	11/16	42
214, 224, 334, 344, 374	Spec. Divco Super 6	105	15	Pos			1/16-1/8	1	(d)	8	6	6	(e)	17	43½	5/8	42
42, 52	Std. Divco Super 6	105	15	Pos			1/16-1/8	1	(d)	8	6	6	5½	16	43½	5/8	42

LUBRICATION

MODEL WITH STANDARD ENGINE	Engine		Transmission		Rear Axle		Steering Gear	
	Viscosity and Temperature Range		Summer	Winter	Summer	Winter	Summer	Winter
STUDEBAKER								
E5, E6, E7	All models		90	90	90	90	140	140
E10, E11, E12, E13, E14, E15	30 above 32°	20 above 10°	90	90	140	90	140	140
E16, E17, E28, E38	10W above −10°	5W below −10°	140	90	140	90	140	140
DIVCO								
11, 12, 13, 384	40 Summer	20W Winter	140	90	140	90	140	140
15, 214, 224, 334, 344, 374	30 Summer	20 Winter	140	90	140	90	140	140
Divco Super Six, 42, 52	20 Summer	10 Winter	140	90	140	90	140	140

TRUCK DATA

WHITE WILLYS

ENGINE	SIZE	OIL	C.P.	IGNITION						VALVES								
	Number of Cylinders, Bore and Stroke	Normal Oil Pressure, Lb. at M.P.H. or R.P.M.	Compression, psi at Cranking Speed	Distributor Rotation	Cam Angle (deg.)	Breaker Point Gap	Breaker Arm Tension (oz.)	Spark Occurs °TC B-Before A-After	Spark Occurs Flywheel Teeth °TC B-Before A-After	Intake Valve Opens B-Before A-After °TC	Flywheel Teeth °TC	Intake Tappet Clearance for Valve Timing	Operating Tappet Clearance (Hot unless noted) Intake	Exhaust	Seat Angle (deg.)	Face Angle (deg.)	Guide Clearance
WHITE																		
116A, 230A	6-3¾x4½, 6-4x4½	30-3000		Cw	35	.022	19-23	6B	...	15B	...	...	0	0	45	45	I. .0021-.0034 E. .0024-.0041
250A	6-4x5⅛	30-3000		Cw	31-37	.022	17-20	3B	...	15B	...	...	0	0	45	45	I. .0019-.0036 E. .0034-.0051
380A, 390A	6-4⅛x5, 6-4¼x5	40-2900		Cw	31-37	.022	19-23	9B, 6B	...	15B	...	...	0	0	45	45	I. .0017-.0032 E. .0028-.0045
WILLYS				(1)														
6L-226 "L"	6-3⅛x4½	35-1700	120-130	Ccw	36-42	.020	17-20	4B	(a)	10B	(a)	18	.014C	.014C	I. 30 E. 45	30 45	.0041
475 "F"	6-3½x4½	35-2000	100-125	Ccw	37-43	.020	17-20	5B	(b)	9B	(b)	26	.018C	.016C	I. 45 E. 45	45	.0035
685 "F"	6-3½x4½	35-2000	115-135	Ccw	36-42	.020	17-20	5B	(a)	9B	(a)	26	.018C	.016C	I. 45 E. 45	45	.0035

ENGINE	SPARK PLUGS				PISTONS, RINGS				VALVE SPRINGS				CAM	
	Make	Type	Size	Gap	Piston Clearance	Oil Ring Side Clearance	Comp. Ring Side Clearance	Ring End Gap	Valve Open Pressure (Av. lb.)	Valve Open Length—in.	Valve Closed Pressure (Av. lb.)	Valve Closed Length—in.	End Play	Bushing Clearance
WHITE														
116A	CH	J6	14	.025	.005	.002	.003	.015	122-131	1.868	73-80	2.250	.004	.002
230A, 250A	CH	J6	14	.025	.005	.002	.003	.013-.023	I. 145-155 O. 141-151	1.850 1.889	70-77	2.250	.003-.005	.001-.003
380A, 390A	CH	6 Com	18	.025	.005	.002	.003	.013-.023	175-185	1.827	90-100	2.250	.004	.002
WILLYS														
6L-226	(c)	...	14	.030	(d)	(f)	(g)	.012	118	1.312	51	1.672	.005	.002
475, 685	(c)	...	14	.030	(e)	.013	(h)	.012	153	1.40	73	1.66	.0055	(i)

NOTES

WHITE

(1)—Viewed from top.
a—Models 380A, 390A have 2 batteries.
b—Straight mineral oil.

WILLYS

a—Mark on vibration damper.
b—Mark on crankshaft pulley.
c—Auto-Lite A-7 or Champion J-8.
d—Top skirt .0007-.0017.
e—Top skirt .0021-.0029.
f—Intermediate .0025-.004, lower .0025-.004.
g—Top .003-.004, intermediate .0015-.0035.
h—Top .002-.004, 2nd .0015-.0035.
i—.001-.0025.
j—6.0 lbs. ft., 335 amps @ 2.0 volts.
k—Maximum clearance.
l—Rear M/Br6.
m—Front M/Br6.
n—Plus 3½ for transfer case.
o—Plus ¾ with O-drive.

ENGINE	TENSIONS		
	Cylinder Head (Lbs. ft.)	Main Bearings (Lbs. ft.)	Connecting Rod Bearings (Lbs. ft.)
WHITE			
116A	105-110	80-90	40-60
230A, 250A	105-110	80-90	48-52
380A, 390A	105-110	80-90	95-100
WILLYS			
6L-226	30-35	85-95	40-45
475, 685	60-70	65-75	50-55

MODEL	ENGINE	
	STANDARD	OPTIONAL
WHITE		
3014, 3015	55A	
WC-16, 3014W, 3015W, 3016	116A	
WC-20, WC-20PLT, 3020, 3020PLT	230A	
WC-22, 3022	230A	250A
WC-24, WC-2464, 3024	370A	
WC-24PLT, WC-2464PLT, 302464PLT, 3024PLT	380A 370A	370A-390A 390A
WC-26, 3026, 30260H, WC-2264, WC-22PLT, WC22T, WC-26T WC-2264PLT, 302264PLT	250A	
WC-18, 3028, 3024T	380A	390A

Note: For additional specialized truck models, note engine model and refer to tables below.

WILLYS—Engine Model No. is same as Series No.

ENGINE	GENERATOR			STARTER						RODS, PINS			C. SHAFT		
	Brush Spring Tension	Max. Charge Rate	Voltage	Brush Spring Tension	Amp. (No Load)	Voltage (No Load)	Torque (Lock)	Amp. (Lock)	Voltage (Lock)	Pin Clearance	Rod Bearing Clearance	Rod Side Clearance	End Play	Main Bearing Clearance	End Thrust Carried on
WHITE															
116A, 230A, 250A	25	50	6	24-28	70	5.0	28	600	3.0	.0003	.002- .003	.....	.006- .008	.003- .004	center
380A, 390A	25	40	12	24-28	75	11.25	29	615	5.85	.0008	.003- .004	.....	.004- .008	.0035- .0045	main
WILLYS															
6L-226	35-53	45	6	35-53	65	5	[illegible]	335	2.0	.0002	.0018K	.0085	.004	.0013	(l)
475	35-53	45	6	35-53	65	5	[illegible]	335	2.0	.0003	.0013	.007	.005	.0016	(m)
685	35-53	45	6	35-53	65	5	[illegible]	335	2.0	.0003	.0013	.007	.005	.0016	(m)

MODEL	ENGINE	BATTERY					FRONT END				CAPACITIES				FAN BELT		
		Amp. Hour Capacity	Number of Plates	Terminal Grounded	S.A.E. Group Number	A.A.B.M. Group Number	Toe-In (In.)	Camber (Deg.)	Caster (Deg.)	King Pin Slant (Deg.)	Engine Oil (Qt.)	Transmission Oil (Pt.)	Rear Axle Oil (Pt.)	Cooling System Capacity (Qt.)	Circumference (In.)	Width (In.)	Angle of "V" (Deg.)
WHITE																	
	116A, 230A, 250A	120	15	Pos	2	0-1/4	.....	.....	.....	.....	12	.....	.....	.....	.....	.....	.....
	380A, 390A	120a	15	Pos	2	0-1/4	.....	.....	.....	.....	15	.....	.....	.....	.....	.....	.....
WILLYS																	
6-226 series	6L-226	100	15	N	1H	.....	.071	1 1/2	3	7.5	5	3n	3 1/2	13	41	.438	36
475 4wd truck	475	100	15	N	1H	.....	.071	1 1/2	3	7.5	4	3n	3 1/2	12	42 1/8	.688	38
475 4x4s	475	100	15	N	1H	.....	.071	1 1/2	3	7.5	4	3n	3 1/2	12	42 1/8	.688	38
475 sedan del.	475	100	15	N	1H	.....	.094	1 1/2	1	6	4	1 1/2o	2	12	42 1/8	.688	38
685 series	685	100	15	N	1H	.....	.094	1 1/2	1	6	5	1 1/2o	2	11	40.50	.688	38

MODEL WITH STANDARD ENGINE	LUBRICATION									
	Engine				Transmission		Rear Axle		Steering Gear	
	Viscosity and Temperature Range				Summer	Winter	Summer	Winter	Summer	Winter
WHITE										
33C, 33C-6, 45C, 82C, 89C, 96C, 105C, 107C, 129C, 245C, 289C, 317C, 318C, 319C, 320C, 321C, 324C, 329C, 400C, 402C, 403C, 407C	ALL ENGINES Summer HD30 Winter HD20				90	90	90EP	90EP	90	90
83C, 404C, 406C, 414C				Spicer trans.—	80	80	140b	140b	90	90
All others					.....	.....	140EP	140EP	90	90
WILLYS									Steering gear lube	
All 2WD Models	30 above 90°	20 above 10°	10W above —10°	5 W below —10°	90	80	90	90	140	140
All 4WD Models	30 above 90°	20 above 10°	10W above —10°	5W below —10°	140	90	90	90	140	140

BUS DATA

GENERAL MOTORS FLXIBLE FLXIBLE-TWIN

ENGINE	SIZE	OIL	C.P.	IGNITION						VALVES							
										Intake Valve Opens B-Before A-After			Operating Tappet Clearance (Hot unless noted)				
	Number of Cylinders, Bore and Stroke	Normal Oil Pressure, Lb. at M.P.H. or R.P.M.	Compression, psi at Cranking Speed	Distributor Rotation	Cam Angle (deg.)	Breaker Point Gap	Breaker Arm Tension (oz.)	Spark Occurs °TC B-Before A-After	Spark Occurs Flywheel Teeth °TC B-Before A-After	°TC	Flywheel Teeth °TC	Intake Tappet Clearance for Valve Timing	Intake	Exhaust	Seat Angle (deg.)	Face Angle (deg.)	Guide Clearance
GENERAL MOTORS—See General Motors data page 84																	
FLXIBLE, FLXIBLE-TWIN																	
Buick FB-320	8-3 7/16 x4 1/8	35-45-2400	.....	Cw	21-30	.015	....	6B	....	14B	....	....	.015	.015	45	45	....
GM-471	4-4 1/4 x5	40-2000	390	....	....	....	Diesel	....	....	....	....	....	....	.009	30	....	.003
Cum JBS600, JT600	6-4 1/4 x5	30-60-2500	525	....	....	....	Diesel	....	....	41B	....	....	.015	.025	30	30	....
Fag FTC-180 (vert.)	6-4 1/4 x4 3/4	45-55-2400	160a	Cw	31-37	.022	....	4B	....	12B	....	.018	.018	.018	45	45	.002
Fag FTC-200 (hor.)	6-4 5/8 x5	45-55-2400	155a	Cw	31-37	(b)	....	2B	....	12B	....	.018	.015	.018	45	45	.002
Fag FTC-210 (hor.)	6-4 1/2 x5	45-55-2400	150a	Cw	31-37	(b)	....	2B	....	12B	....	.018	.015	.018	45	45	.002
Fag FTC-180 (hor.)	6-4 1/4 x4 3/4	45-55-2400	160a	Cw	31-37	(b)	....	2B	....	12B	....	.018	.015	.018	45	45	.002

ENGINE	SPARK PLUGS				PISTONS, RINGS				VALVE SPRINGS				CAM	
									Valve Open		Valve Closed			
	Make	Type	Size	Gap	Piston Clearance	Oil Ring Side Clearance	Comp. Ring Side Clearance	Ring End Gap	Pressure (Av. lb.)	Length—in.	Pressure (Av. lb.)	Length—in.	End Play	Bushing Clearance
GENERAL MOTORS—See General Motors data page 84														
FLXIBLE, FLXIBLE-TWIN														
Buick FB-320	AC	46X	14	.023-.028	.0026-.0032	.0015-.003	.0015-.003	.010-.020	I. 48-54 O. 74-80	1 5/8 1 11/16	17 1/2-22 1/2 29 1/2-34 1/2	1 3/4 1 13/16	.004-.008	.0005-.0035
GM-471	....	....	Diesel	....	.004-.0072	.0015-.0055	(c)	.025-.040	140	1 3/4	44	2 1/16	.003-.011	.0025-.005
Cum JBS-600, JT-600	....	....	Diesel	....	.005-.0065	....	....	.013-.023	169-187	2	81-91	2 1/8	.002-.004	.0015-.0045
Fag FTC-180, 200, 210	CH	J5	14	.020	.004-.005h	.0015-.0035i	d, e, f	.013-.023j	132-141	1 7/16	64-71	1 1/2	(g)	.004-.0055

NOTES

GENERAL MOTORS

a—Standard injector size 70 cu. mm. Optional injector 80 cu. mm.
b—Standard injector size 55 cu. mm. Optional injector 60 cu. mm.
c—Standard injector size 70 cu. mm. Optional injector 60 cu. mm.
d—Includes transmission, transfer case and air cond. drive.

FLXIBLE, FLXIBLE-TWIN

a—At 250 rpm.
b—.018-.020.
c—(1) .010-.0125, (2) .0075-.0105; (3) and (4) .0055-.0085.
d—(1) .003-.0045, (2) and (3) .002-.0035.
e—(1) .003-.0045, (2) and (3) .002-.0045.
f—(1) .0035-.0055, (2) and (3) .0025-.0045.
g—Thrust bearing.
h—Models 200, 210—.002-.004.
i—Model 210—.002-.0035.
j—Model 210—.012-.020.

ENGINE	TENSIONS		
	Cylinder Head (Lbs. ft.)	Main Bearings (Lbs. ft.)	Connecting Rod Bearings (Lbs. ft.)
GEN. MOTORS—See page 84			
FLXIBLE, FLX-TWIN			
Buick FB320	70	130	65
GM471	165-185	155-185	65-75
Cum JBS600, JT600	(See Cummins engines, page 104)		
Fageol engines	85-90	85-90	80-90

MODEL	STANDARD ENGINE
GENERAL MOTORS	
TGH3102	Own 270 (Gasoline)
TDH3714	Own 4-71 (Diesel) a
Rest of TDH series	Own 6-71 (Diesel) b
TDM series	Own 6-71 (Diesel) c
PD4104	Own 6-71 (Diesel) a
PD4501	Own 4-71 (Twin Diesels)

MODEL	ENGINE	
FLXIBLE		
218B1-56	Buick FB-320	Fag FTC-200
218F1-56	Fag FTC-180	
218JBS1-56	Cum JBS-600	
218GM1-56	GM-471	
228JT1-56	Cum JT-600	
228F1-56	Fag FTC-200	
FLXIBLE-TWIN		
FT-30	Fag FTC-180	
FT-33	Fag FTC-180	Fag FTC-200
FT-35, FT-40	Fag FTC-200	Fag FTC-210, Fag-Ley 600

ENGINE	GENERATOR			STARTER						RODS, PINS			C. SHAFT		
	Brush Spring Tension	Max. Charge Rate	Voltage	Brush Spring Tension	Amp. (No Load)	Voltage (No Load)	Torque (Lock)	Amp. (Lock)	Voltage (Lock)	Pin Clearance	Rod Bearing Clearance	Rod Side Clearance	End Play	Main Bearing Clearance	End Thrust Carried on
GENERAL MOTORS—See General Motors data page 84															
FLXIBLE, FLXIBLE-TWIN															
Buick FB320	23	55	13	24-28	70	11.3	16	530	6.7	.0003-.0004	.0026-.003	.005-.010	.004-.008	.0015-.0022	CB
GM471	23	80	13	36-40	115	11.6	20	570	2.3	.0015-.0024	.0014-.0044	.006-.012	.004-.011	.0014-.0044	RMB
Cum JBS-600, JT-600	9, 23[1]	100, 80	14, 13	36-40	115	11.6	20	570	2.3	.001-.0017	.002-.0045	.006-.011	.004-.009	.002-.004	RMB
Fag, FTC 180, FTC 200	23	55, 100	13, 14	36-40	65	11.4	44	725	5.0	0-.0004T	.0015-.0036	.0045-.0095	.005-.014	.0015-.004	CB
Fag FTC 210	...	100	14	36-40	65	11.4	44	725	5.0	+.002-−.002	.0015-.0036	.0045-.0095	.005-.014	.0015-.004	CB

MODEL	ENGINE	BATTERY					FRONT END				CAPACITIES				FAN BELT		
		Amp. Hour Capacity	Number of Plates	Terminal Grounded	S.A.E. Group Number	A.A.B.M. Group Number	Toe-In (In.)	Camber (Deg.)	Caster (Deg.)	King Pin Slant (Deg.)	Engine Oil (Qt.)	Transmission Oil (Pt.)	Rear Axle Oil (Pt.)	Cooling System Capacity (Qt.)	Circumference (In.)	Width (In.)	Angle of "V" (Deg.)
GENERAL MOTORS																	
TGH 3102	270 Gasoline	150	19	Pos	4D	....	1/8-1/4	1	4	8½	8	23	9¼	28	....	....	....
TDH 3714	4-71 Diesel	175	17	Pos	8G	....	1/8-1/4	1	3	8	21	56	20	61	....	....	....
TDH 4512, 4515	6-71 Diesel	175	17	Pos	8G	....	1/8-1/4	1	3	8	26	56	20	72	....	....	....
TDM 4512, 4515	6-71 Diesel	175	17	Pos	8G	....	1/8-1/4	1	3	8	26	11	20	72	....	....	....
TDH 4601, 5106, 5108, 5108	6-71 Diesel	175	17	Pos	8G	....	1/8-1/4	1	3	8	26	56	26	72	....	....	....
TDM 4601, 5106, 5108	6-71 Diesel	175	17	Pos	8G	....	1/8-1/4	1	3	8	26	11	26	72	....	....	....
PD 4104	6-71 Diesel	205	27	Pos	8D	....	1/8-1/4	1	3	8	29	21	18	73½	....	....	....
PD 4501	4-71 Twin Diesel	200	25	Pos	8D	....	1/8-1/4	1	3	8	16 ea	60d	26	L-52 R-58	....	....	....
FLXIBLE, FLXIBLE-TWIN																	
218B1-56	FB-320	160	27	Pos	....	8D	1/8-1/4	1	2	5½	13	11	23	52	60.12	.71	40
218F1-56	FTC-180	160	27	Pos	....	8D	1/8-1/4	1	2	5½	12	11	23	58	60.62	.65	40
218JBS1-56	JBS-600	160	27	Pos	....	8D	1/8-1/4	1	2	5½	14	11	23	60	35.75	.42	38
218GM1-56	GM-471	160	27	Pos	....	8D	1/8-1/4	1	2	5½	14	13	23	58	44.62	.85	38
228JT1-56	JT-600	160	27	Pos	....	8D	1/8-1/4	1½	0	5½	14	13	20	63	78	.68	38
228F1-56	FTC-200	160	27	Pos	....	8D	1/8-1/4	1½	0	5½	12	13	20	....	....	.68	36
FT-30, FT-33	FTC-180	175	17	Pos	8G	4B	1/8	1	1½	5½	12	17	23, 31	62, 63	41.50	.62	36
FT-35, FT-40	FTC-200	175	17	Pos	8G	4B	1/8	1	1½	5½	12	17	31, 30	64, 66	41.50	.62	36

MODEL WITH STANDARD ENGINE	LUBRICATION						
	Engine	Transmission		Rear Axle		Steering Gear	
	Viscosity and Temperature Range	Summer	Winter	Summer	Winter	Summer	Winter
GENERAL MOTORS—See General Motors data page 84							
FLXIBLE							
218B1-56	Summer 20 / Winter 10	80 MO	50 MO	2-105-B	2-105-B	80 MO	80 MO
218F1-56, 228F1-56	Summer 30 / Winter 20	50 MO	50 MO	2-105-B	2-105-B	80 MO	80 MO
218JBS1-56	10 below 32° / 20 @ 32°-90° / 30 above 90°	50 MO	50 MO	2-105-B	2-105-B	80 MO	80 MO
218GM1-56, 228JT-1	10 below 20° / 20 @ 20°-80° / 30 above 80°	50 MO	50 MO	2-105-B	2-105-B	80 MO	80 MO
FLXIBLE-TWIN							
All models	10 @ 0°-25°, 20 @ 15°-65°, 30 @ 45°-80°, 40 above 70°	140 MO	90 MO	140 EP	90 EP	140	90

BUS DATA

FITZJOHN SOUTHERN MARMON-HERRINGTON

ENGINE	SIZE	OIL	C.P.	IGNITION						VALVES								
	Number of Cylinders, Bore and Stroke	Normal Oil Pressure, Lb. at M.P.H. or R.P.M.	Compression, psi at Cranking Speed	Distributor Rotation	Cam Angle (deg.)	Breaker Point Gap	Breaker Arm Tension (oz.)	Spark Occurs °TC B-Before A-After	Spark Occurs Flywheel Teeth °TC B-Before A-After	Intake Valve Opens B-Before A-After °TC	Intake Valve Opens B-Before A-After Flywheel Teeth °TC	Intake Tappet Clearance for Valve Timing	Operating Tappet Clearance (Hot unless noted) Intake	Operating Tappet Clearance (Hot unless noted) Exhaust	Seat Angle (deg.)	Face Angle (deg.)	Guide Clearance
FITZJOHN																	
Her JXLD	6-4x4½	26-2600	90-95a	Ccw	31-37	.022	19-23	TC	TC	5B	1¼B	.010	.010	.010	30	30	.00175
Her WXLD	6-4½x4¾	26-2600	90-95a	Ccw	31-37	.022	19-23	TC	TC	5B	1¼B	.016	.012	.016	30	30	.00125
Wau 140GKB	6-4½x5½	40-1200+	90-95	Ccw	31-37	.022	19-23	TC	TC	15B	16⅞B	.056	.012-.014C	.024-.026C	E.30 I.45	30½ 45½	.0025 .0035
SOUTHERN COACH																	
Fag-Ley FLDH-600	6-4.8x5.5	60-70-2100	....	....	....	Diesel		....	....	10B	....	.020	.020	.020	30	29½	.003
Fag FTC-180	6-4¼x4¾	45-2100	160a	Ccw	35	22	....	TC	....	10-14B	....	.018	.015C	.018C	45	45	(b)
Cum NHHB-600	6-5½x6	30-50-2100	....	....	....	Diesel		....	....	20B	....	....	.014	.027	30	30	.003
Wau 6MZA	6-4¼x4¾	40-1500	105	Cw	31-37	.018	....	5B	....	8B	3B	.008	.009C	.020C	44.5	....	(c)

ENGINE	SPARK PLUGS				PISTONS, RINGS				VALVE SPRINGS				CAM	
									Valve Open		Valve Closed			
	Make	Type	Size	Gap	Piston Clearance	Oil Ring Side Clearance	Comp. Ring Side Clearance	Ring End Gap	Pressure (Av. lb.)	Length—in.	Pressure (Av. lb.)	Length—in.	End Play	Bushing Clearance
FITZJOHN														
Her JXLD	AL	TT4	7/8-18	.025	.00425	(b)	(b)	.0175	57.2-62.8	1.564	41-56	1.920	.002-.003	.0015-.0025
Her WXLD	CH	J8	14	.025	.00425	(b)	(b)	.0175	97-107	2 5/32	52½-47½	2 1/16	.002-.003	.0015-.0025
Wau 140GKB	CH	H-8	14	.025	.0065	.0015-.003	.002-.0035	.025-.035	177±5	1 11/16	7A±4	2 1/16	(c)	.002-.0025
Cum JBS-600	....	Diesel		....	.005-.0065	.002-.004	.013-.023	....	169-187	2	81-91	2.406	.005-.010	.0015-.0045
Cum JT-6-B	....	Diesel		....	....	....	....	....	....	....	....	....	....	....
SOUTHERN COACH														
Fag FTC-180	CH	J5	14	.025	.004-.005	.002-.003	.0035-.004	.013-.023	132-141	1 1/16	64-71	1 1/16	....	.004-.0055
Fag-Ley FLDH-600	....	.... Diesel		....	.007-.010	.003-.005	.004-.006	.020-.027	....	....	....	....	.004	.004-.0055
Cum NHHB-600	....	.... Diesel		....	.008	.002	.0045	.013-.023	104-114	1 13/16	74-82	2¼	....	....
Wau 6MZA	CH	6 Com	18	.025	.004	.0015	.0015-.003	....	101	1 13/16	64	2 1/16	.003-.0065	....

NOTES

FITZJOHN

a—Minimum.
b—.00075-.0015.
c—Spring loaded thrust button.
d—Two batteries, 150 each.
e—Two belts.
f—Three belts.
g—D.C. type generator.
h—Alternator type.
i—Minimum tension.
j—Front and intermediate 70, center and rear 60.
k—Front and intermediate 105, center and rear 70.
l—Straight mineral gear lube.
m—Multipurpose gear lube.

SOUTHERN

a—At 250 rpm.
b—Inlet, .0025-.00375; exhaust, .003-.00425.
c—Intake, .0015-.0035; exhaust, .0025-.0045.
d—Mechanical section of hydraulic transmission.
e—Wagner compressor (matched set).
f—Alternator (matched set).
g—Steering booster pump.
h—B-W compressor (matched set).
i—Hypoid.
j—Tighten to elongated length of 3.682 to 3.683 in.

MARMON-HERRINGTON

a—Use SAE 90 when operating in below zero temperature or stored at below 35°F.

TENSIONS

ENGINE	Cylinder Head (Lbs. ft.)	Main Bearings (Lbs. ft.)	Connecting Rod Bearings (Lbs. ft.)
FITZJOHN			
Her JXLD	100	(j)	56
Her WXLD	100	(k)	53
Wau 140EKB	200-208	126-137	98-100
Cummins engines	See Cummins engines, page 104.		
SOUTHERN COACH			
Fag. FTC-180	60-65	85-90	90-100
Fag-Ley FLDH-600	155-160	260-270	(j)
Cum NHHB-600	(See Cummins engines, page 104)		
Wau 6MZA	75	96-100	67-69

MODEL	ENGINE	
	STANDARD	OPTIONAL
SOUTHERN		
S-36	Fag-Ley FLDH-600	Wau 6MZA
S-41	Fag FTC-180	Fag-Ley FLDH-600
S-45	Cum NHHB-600	Fag-Ley FLDH-680
	Fag FTC-180	
S-50	Cum NHHB-600	

MODEL	ENGINE
FITZJOHN	
FTG Cityliner	Her JXLD
FTG Cityliner	Her WXLD
FTD Cityliner	Cum JBS-600
FIG Roadrunner	Wau 140GKB
FID Roadrunner	Cum JBS-600
FID Roadrunner	Cum JT-6-B

MODEL	ENGINE
MARMON-HERRINGTON	
8MB	Ford 8MTH
8MC	Ford EAL
8MD	Ford EBZ
4SC	Ford EAM
5SC	Ford EAM
6SC	Ford EAM

ENGINE	GENERATOR			STARTER						RODS, PINS			C. SHAFT		
	Brush Spring Tension	Max. Charge Rate	Voltage	Brush Spring Tension	Amp. (No Load)	Voltage (No Load)	Torque (Lock)	Amp. (Lock)	Voltage (Lock)	Pin Clearance	Rod Bearing Clearance	Rod Side Clearance	End Play	Main Bearing Clearance	End Thrust Carried on
FITZJOHN															
Her JXLD	25g	55	13	24i	65	11.35	15	450	7.5	.0005–.0012	.0025–.003	.008–.010	.002–.004	.0035–.004	r.m.n.
Her WXLD	h	60	13	36-40	65	11.3	30	675	4.0	.0015–.0012	.003–.004	.005–.012	.003–.004	.0035–.0045	r.m.n.
Wau 140GKB	h	100	13	36-40	65	11.4	44	725	5.0	.0011–.0013	.001–.003	.010–.016	.003–.007	.002–.004	r.m.n.
Cum JBS-600, JT-6-B	h	100	13	36-40	115	11.6	20	570	2.3	....	....	....	....	....	....
SOUTHERN COACH															
Fag. FTC-180	....	100	12	Delco-Remy No. 1109150						....	.0015–.0036	....	....	.002	C. Mn.
Fag.-Ley. FLDH-600	....	100	12	Leece-Neville No. 1366 MA						.00045–.001	.0018–.0037	....	.004–.014	.0020–.0042	center main
Cum NHHB-600	....	100	12	Leece-Neville No. 2432-M						.0006	.003	....	.007	.00325	....
Wau 6MZA	....	100	12	Delco-Remy No. 1108609						....	.002	.025	.003	.0025	....
MARMON-HERRINGTON															
8MB, 8MC, 8MD	24-36	55	12	See Ford data, page 80											

MODEL	ENGINE	BATTERY					FRONT END				CAPACITIES				FAN BELT		
		Amp. Hour Capacity	Number of Plates	Terminal Grounded	S.A.E. Group Number	A.A.B.M. Group Number	Toe-In (In.)	Camber (Deg.)	Caster (Deg.)	King Pin Slant (Deg.)	Engine Oil (Qt.)	Transmission Oil (Pt.)	Rear Axle Oil (Pt.)	Cooling System Capacity (Qt.)	Circumference (In.)	Width (In.)	Angle of "V" (Deg.)
FITZJOHN																	
FTE Cityliner	Her JXLD	150	19	Pos	4D	4D	2	1	2	5½	8.8	8	19	48	56e	.938	44
FTE Cityliner	Her WXLD	150	19	Pos	4D	4D	2	1	2	5½	8	8	19	48	66A/f	½	32
FTE Cityliner	Cum JBS-600	d	19	Pos	4D	4D	2	1	2	5½	12	8	19	52	40e	⅝	38
FIE Roadrunner	Wau 140-GKB	150	19	Pos	4D	4D	⅛	1	2½	5½	12	12	23	56	128.2	1	36
FID Roadrunner	Cum JBS-600	d	19	Pos	4D	4D	⅛	1	2½	5½	12	12	29	56	128.2	1	36
FID Roadrunner	Cum JT-6-B	d	19	Pos	4D	4D	⅛	1	2½	5½	12	12	23	56	128.2	1	36
SOUTHERN COACH																	
S-36-DHL, Fag-Ley	FLDH-600	168	21	Pos	6D	....	1/16–⅛	1½	1	5½	26	3½d	23	72	80	½	40e
															40⅝	½	40f
S-38-HW, Wau	6MZA	168	21	Pos	6D	....	1/16–⅛	1½	1	5½	15	3½d	23	72	45	1⅛	46e
															40⅝	½	40f
S-41-HF, Fag	FTC-180	168	21	Pos	6D	....	1/16–⅛	1½	1	5½	12	3½d	31	72	42½	⅝	40h
															44⅝	½	40e
															40⅝	½	40f
S-45-HF, Fag	FTC-180	168	21	Pos	6D	....	1/16–⅛	1½	1	5½	12	3½d	30	72	44⅝	½	40e
															40⅝	½	40f
S-45-DHC, Cum	NHHB-600	200	25	Pos	8D	....	1/16–⅛	1½	1	5½	32	6d	30	84	43½	.790	44
															40⅝	½	40f
MARMON-HERRINGTON															40	½	9
8MB, 8MC, 8MD	Ford 8MTH, EAL, EBZ	160	17	Pos	....	....	0–1/16	1	3	8	9	9	7	46	....	....	....

MODEL WITH STANDARD ENGINE	LUBRICATION							
	Engine			Transmission		Rear Axle		Steering Gear
	Viscosity and Temperature Range			Summer	Winter	Summer	Winter	Summer / Winter
FITZJOHN						Above 0°	Below −10°	
FTE-Her JXLD, FTE-Her WXLD	Summer (above 50°) H.D. 30	Winter (below 50°) H.D. 20		90(1)	90(1)	140m	90m	140(1) / 90(1)
FTE, FID Cum JBS-600, JT-6-B	Summer (above 50°) H.D. 20	Winter (below 50°) H.D. 20		90(1)	90(1)	140m	90m	140(1) / 90(1)
FIE 140EKB	Summer (above 50°) H.D. 40	Winter (below 50°) H.D. 30		90(1)	90(1)	140m	90m	140(1) / 90(1)
SOUTHERN COACH								
S-36-HW-Wau 6MZA	40W above 70°, 30W @ 50°-70°, 20W @ 30°-50°, 10W below 30°			50d	50d	140l	140l	140 / 140
S-45-DHC-Cum NHHB-600	30W above 80°, 20W @ 20°-80°, 10W below 20°			50d	50d	140l	140l	140 / 140
All others	30W @ 50°-70°, 20W @ 30°-50°, 10W below 30°			50d	50d	140l	140l	140 / 140
MARMON-HERRINGTON								
8MB, 8MC, 8MD	10 below −10°	20 @ −10° to +10°	30 @ 32°	70	50	140	140a	90 / 90

ENGINE DATA

BUDA CUMMINS

BUDA	SIZE	OIL		C.P.	IGNITION								VALVES				
													Intake Valve Opens B-Before A-After			Operating Tappet Clearance (Hot unless noted)	
	Number of Cylinders, Bore and Stroke	Normal Oil Pressure, Lb. at M.P.H. or R.P.M.	Engine Oil Capacity (Qts.)	Compression, psi at Cranking Speed	Distributor Rotation	Cam Angle (deg.)	Breaker Point Gap	Breaker Arm Tension (oz.)	Spark Occurs °TC B-Before A-After	Spark Occurs Flywheel Teeth °TC B-Before A-After	Generator Voltage	Starter Voltage (No Load)	°TC	Flywheel Teeth-°TC	Intake Tappet Clearance for Valve Timing	Intake	Exhaust
6B-230	6-3 1/16x4 1/2	20-1600	6		Cw		.018				6	6	10B		.008	.009	.009
6B-273	6-3 3/8x4 1/2	20-1600	6		Cw		.018				6	6	10B		.008	.009	.009
HP-326	6-3 11/16x4 5/8	40-1400	6	103	Cw		.018				6	6	TC		.006	.006	.009
HP-351	6-3 11/16x5 1/2	40-1400	6	103	Cw		.018				6	6	TC		.006	.006	.009
K-428	6-4 5/8x4 5/8	40-1400	9	102	Cw		.018				6	6	6B		.006	.006	.009
L-525	6-4 1/2x5 1/2	40-1600	9	87	Cw		.018				12	12	6B		.006	.006	.009
LO-525	6-5 1/2x6	40-1500	9	93	Cw		.018				12	12	10B		.009	.009	.018
6MO-893	6-3 1/16x4 1/2	40-1400	24	105	Cw		.018				12	24	10B		.010	.015	.015
6MO-970	6-5 1/2x6 1/2	40-1400	24	125	Cw		.018				12	24	10B		.010	.015	.015
6BD-230	6-3 1/16x4 1/2	20-1600	6								12	12	20B		.008	.009	.009
6BD-273	6-3 3/8x4 1/2	20-1600	6								12	12	20B		.008	.009	.009
6DT-317	6-3 5/8x5 1/2	30-1600	6								12	24	20B		.009	.009	.012
6DT-466	6-4 1/4x5 1/2	30-1600	9								12	24	17B		.010	.012	.015
6DTS-466	6-4 1/4x5 1/2	40-1600	10								12	24	48B			.016	.020
6DAS-516	6-4 7/16x5 5/8	35-1500	16		Diesels						12	24	30B		.010	.012	.015
6DA-779	6-5 1/4x6	40-1400	24								12	24	20B		.010	.015	.015
6DA-844	6-5 1/4x6 1/2	40-1400	24								12	24	20B		.010	.015	.015
6DAS-844	6-5 1/4x6 1/2	40-1400	24								12	24	30B		.010	.015	.015
8DA-1125, 8DAS-1125	8-5 1/4x6 1/2	40-1400	30								12	24	20B		.010	.015	.015

BUDA	SPARK PLUGS				PISTON, RINGS				VALVE SPRINGS				CAM	
									Valve Open		Valve Closed			
	Make	Type	Size	Gap	Piston Clearance	Oil Ring Side Clearance	Comp. Ring Side Clearance	Ring End Gap	Pressure (Av. lb.)	Length—In.	Pressure (Av. lb.)	Length—In.	End Play	Bushing Clearance
6B-230, 6B-273	CH	J-11	14	.027	(a)				122-131	1 1/16	42-47	1 1/16	.005	.0033
HP-326, HP-351	CH	8 Com	18	.025	.0032				96-105	1 1/16	34-38	1 1/16	.0065	.00275
K-428, L-525	CH	10 Com 64	18	.025	(b)				128-138	1 1/16	51-57	2 3/16	.0065	.0027
LO-525	CH	J-8	14	.027	.004				128-136	2 1/16	42-49	2 3/16	.0065	.0027
6MO-893, 970	CH	6 Com	18	.025	.005				145-155	2 1/16	62-68	2 3/16	.006	.006
6BD-230					.0115				122-131	1 1/16	42-47	1 1/16	.0055	.0033
6BD-273					.0045				122-131	1 1/16	42-47	1 1/16	.0065	.0033
6DT-317					.0051				97-106	1 1/16	40-44	1 1/16	.006	.0035
6DT-466	Diesels				.0047				136-145	1 1/16	52-58	2 3/16	.006	.0035
6DTS-466					.0057				156-165	1 1/16	55-61	2 3/16	.006	.0035
6DAS-516					.0087				156-265	1 1/16	55-61	2 3/16	.006	.0035
6DA-779, 844, 8DA-1125					.007				200-210	2 1/16	76-86	2 3/16	.003	.006
6DAS-844, 8DAS-1125					.010				200-210	2 1/16	76-86	2 3/16	.003	.006
					.012									

NOTES

BUDA

(a)—Bottom of skirt.
(b)—Snug on .003x1/2" ribbon.
(c)—Thin wall bearing .0015-.0040.
(d)—Thin wall bearing .0015-.0045.
(e)—5/8"-60-70; 7/16"-75-85; 1/2"-95-105; 9/16"-125-135; 5/8"-150-160.
(f)—1 1/16"-195-200; 1 1/8"-210-230; 1 1/4"-230-250; 1 3/8"-245-275; 1"-285-315; 1 1/16"-325-350.
(g)—5/8"-180-190; 1/4"-210-230.

CUMMINS

a—Wedge type: .0025-.0045.
b—Manifold side, 220-230; push tube side, 240-250.
c—Manifold side, 525-550; push tube side, 625-650.
d—Template method, see manual for instructions.
e—Battery data refers to 30-volt, 15-cell system.

BUDA

	RODS, PINS			CRANKSHAFT			TENSIONS			FAN BELT		
	Pin Clearance	Rod Bearing Clearance	Rod Side Clearance	End Play	Main Bearing Clearance	End Thrust Carried on . . .	Cylinder Head (Ft. Lb.)	Main Bearings (Ft. Lb.)	Connecting Rod Bearings (Ft. Lb.)	Circumference (In.) O. C.	Width (In.) Top	Angle of "V" (Deg.)
6-B-230-273	.0005	.0025	.006	.004	.0034	Center	(e)	(f)	(f)	47.5	.875	42
HP-326, HP-351	.00087	.003	.005	.006	.003	Center	(e)	(f)	(f)	54½	.875	42
K-428	.00035	.00225	.0065	.006	.0041	Center	(e)	(f)	(f)	57.5	.875	42
L-525	.00035	.00225	.0065	.006	.00325	Center	(e)	(f)	(f)	57.5	.875	42
LO-525	.00035	.00225	.0065	.006	.00325	Center	(e)	(f)	(f)	67½	.924	42
6MO-893, 6MO-870	.00135	(c)	.0075	.010	(d)	Center	(e)	(f)	(f)	66.3	.938	42
6BD-230, 6BD-273	.0005	.0025	.006	.004	.0034	Center	(e)	(f)	(f)	47.5	.875	42
6DT-317	.00125	.002	.0055	.006	.0031	Center	(e)	(f)	(f)	50½	.906	42
6DT-466, 6DTS-466	.00135	.00225	.0065	.008	.00235	Center	(e)	(f)	(f)	57.5	.875	42
6DAS-516	.00135	.00375	.0065	.009	.0031	Center	190–200	(g)	123–135	58¼	.711	42
6DA-779, 6DA-844, 6DAS-844	.0014	.00375	.0065	.009	.00315	Center	(e)	(f)	(f)	71.5	.938	42
8DA-1125, 8DAS-1125	.0014	.00375	.0065	.009	.00315	Center	(e)	(f)	(f)	77.0	.938	42

CUMMINS

	SIZE	OIL	VALVES					VALVE SPRINGS				CAM	
			Operating Tappet Clearance (Hot unless noted)					Valve Open		Valve Closed			
	Number of Cylinders, Bore and Stroke	Normal Oil Pressure, Lb. at M.P.H. or R.P.M. @ Gov. Speed	Intake	Exhaust	Seat Angle (deg.)	Face Angle (deg.)	Guide Clearance	Pressure (Av. lb.)	Length—in.	Pressure (Av. lb.)	Length—in.	End Play	Bushing Clearance
JT	6-4½x5	30–60	.015	.025	30	30	.0015–.0032	136	1.703	69	2.109	.005–.010	.0015–.0045
J, JS	6-4½x5	30–60	.015	.025	30	30	.0015–.0032	169–187	2	81–91	2.406	.005–.010	.0015–.0045
H	6-4⅞x6	30–50	.014	.022	30	30	.0025–.0045	186	2⅛	116	2⅛	.005–.010	.0015–.0055
HR	6-5½x6	30–50	.014	.022	30	30	.0025–.0045	186	2⅛	116	2⅛	.005–.010	.0015–.0055
HRS	6-5½x6	30–50	.016	.028	30	30	.0025–.0045	186	2⅛	116	2⅛	.005–.010	.0015–.0055
NH	6-5½x6	30–60	.014	.027	30	30	.0015–.0032	110	1⅞	78	2¼	.005–.010	.0015–.0055
NHS	6-5½x6	30–50	.014	.027	30	30	.0015–.0032	110	1⅞	78	2¼	.005–.010	.0015–.0055
NHRS	6-5½x6	30–50	.014	.027	30	30	.0015–.0032	110	1⅞	78	2¼	.005–.010	.0015–.0055
NVH	12-5½x6	40–60	.014	.027	30	30	.0015–.0032	110	1⅞	78	2¼	.005–.010	.0015–.0055
NVHS	12-5½x6	40–60	.014	.027	30	30	.0015–.0032	110	1⅞	78	2¼	.005–.010	.0015–.0055
VT	12-5½x6	40–60	.014	.027	30	30	.0015–.0032	110	1⅞	78	2¼	.005–.010	.0015–.0055
HS	6-4⅞x6	30–50	.016	.028	30	30	.0025–.0045	....	....	....	....	....	....

CUM.

	BATTERY			PISTON, RINGS				RODS, PINS			C. SHAFT			TENSIONS		
	Amp. Hour Capacity	Number of Plates	A.A.B.M. Group Number	Piston Clearance	Oil Ring Side Clearance	Comp. Ring Side Clearance	Ring End Gap	Pin Clearance	Rod Bearing Clearance	Rod Side Clearance	End Play	Main Bearing Clearance	End Thrust Carried on . . .	Cylinder Head (Ft. Lb.)	Main Bearings (Ft. Lb.)	Connecting Rod Bearings (Ft.Lb.)
JT	135e	19	4	.005–.0065	.002–.004	.013–.023	....	.001–.0017	.002–.0045	.005	.004–.009	.0018–.0048	Rear	240–250	(d)	(d)
JS	135e	19	4	.005–.0065	.002–.004	.013–.023	....	.001–.0017	.002–.0045	.005	.004–.009	.0018–.0048	Rear	240–250	(d)	(d)
H	170e	25	5D	.006–.008	.0025–.0045	....	.012–.021	.002–.0037	.0015–.0045	.005	.007–.013	.0015–.005	Rear	430–450	(d)	(d)
HR, NH	170e	25	5D	.007–.009	.0025–.0045	(a)	.013–.023	.002–.0037	.0015–.0045	.005	.007–.013	.0015–.005	Rear	430–450	(d)	(d)
HRS	170e	25	5D	.009–.011	.0025–.0045	(a)	.013–.023	....	....	....	....	....	....	430–450	(d)	(d)
NHS, NHRS	170e	25	5D	.009–.011	.0025–.0045	(a)	.013–.023	.002–.0037	.0015–.0045	.005	.007–.013	.0015–.005	Rear	430–450	(d)	(d)
NVH	340e	49	9D	.007–.009	.0025–.0045	(a)	.013–.023	.002–.0037	.002–.0045	.005	.006–.013	.0025–.006	Rear	450	(d)	(d)
NVHS, VT	340e	49	9D	.009–.011	.0025–.0045	(a)	.013–.023	.002–.0037	.002–.0045	.005	.006–.013	.0025–.006	Rear	450	(d)	(d)
L, LR	340e	49	9D	....	....	....	....	.0025–.0043	.002–.005	.005	.008–.016	.002–.008	Rear	(c)	(d)	(d)

ENGINE DATA

HALL-SCOTT HERCULES

HALL-SCOTT	SIZE	OIL	C.P.	IGNITION						VALVES								
	Number of Cylinders, Bore and Stroke	Normal Oil Pressure, Lb. at M.P.H. or R.P.M.	Compression, psi at Cranking Speed	Distributor Rotation	Cam Angle (deg.)	Breaker Point Gap	Breaker Arm Tension (oz.)	Spark Occurs °TC B-Before A-After	Spark Occurs Flywheel Teeth °TC B-Before A-After	Intake Valve Opens B-Before A-After °TC	Intake Valve Opens B-Before A-After Flywheel Teeth °TC	Intake Tappet Clearance for Valve Timing	Operating Tappet Clearance (Hot unless noted) Intake	Operating Tappet Clearance (Hot unless noted) Exhaust	Seat Angle (deg.)	Face Angle (deg.)	Guide Clearance
136 series a	6-4½x5	10-350 60-2400	(d)	Ccw	37	.021	17-21	7.7B	3B	10B	2B	.025C	.025C	.025C	(u)	(v)	I. .00175 E. .0035
180 Series a	6-5x6	10-350 60-2200	(d)	Cw	37	.021	17-21	7.7B	3B	7B	4B	.022C	.022C	.022C	I. 30 E. 45	30 45	.00225 .00375
190 Series a	6-5¼x6	10-350 60-2200	(e)	Cw	37	.021	17-21	7.7B	3B	7B	4B	.022C	.022C	.022C	I. 30 E. 45	30 45	.00225 .00375
400 Series	6-5¾x7	(c)	(f)	Ccw	34-39	.0150	19-23	2B	1/4"B (p)	10B	(t)	.021C	.021C	.031C	I. 30 E. 45	30 w	.00225 .00375
470 Series	6-5½x6	(c)	(f)	Ccw	37-39	.0150	19-23	2B	1/4"B (p)	10B	(t)	.021C	.021C	.031C	I. 30 E. 45	30 w	.00225 .00375
480 Series	6-5¾x6	(c)	(f)	Ccw	37-39	.0150	19-23	2B	1/4"B (p)	10B	(t)	.021C	.021C	.031C	I. 30 E. 45	30 w	.00225 .00375
504 Series a	6-4½x5	10-350 60-2400	(g)	Ccw	37	.021	17-21	7.7B	3B	10B	2B	.025C	.025C	.025C	(u)	v	I. .00175 E. .00275
590 Series b	6-5x5	10-350 60-2800	(h)	Ccw	34-37	.022	19-23	(l)	(q)	10B	(t)	.022	.022	.022	I. 45 E. 45	45½- 45	.00175 .00275
855 Series	6-5½x6	10-350 60-2400	(i)	Ccw	34-37	.021	17-21	(m)	(r)	10B	(t)	I. .021 E. .031	.021C	.031C	I. 30 E. 45	30 w	.00225 .00375
935 Series	6-5¾x8	10-350 60-2400	(j)	Ccw	34-37	.021	17-21	(n)	(s)	10B	(t)	I. .021 E. .031	.021C	.031C	I. 30 E. 45	30 w	.00225 .00375
1091 Series	6-5¾x7	10-350 60-2200	(k)	Ccw	34-37	.021	17-21	(o)	1/16"B (p)	10B	(t)	I. .021 E. .031	.021C	.031C	I. 30 E. 45	30 w	.00225 .00375
6156	6-5¾x8	10-350 60-2400	.....	Ccw	27-37	.021	17-21	(n)	(s)	10B	(t)	I. .021 E. .031	.021C	.031C	I. 30 E. 45	30 (w)	.00225 .00375
6182	6-5¾x7	10-350	.....	Ccw	27-37	.021	17-21	(o)	1/16"B (p)	10B	(t)	I. .021 E. .031	.021C	.031C	I. 30 E. 45	30 (w)	.00225 .00375

HALL-SCOTT	SPARK PLUGS				PISTONS, RINGS				VALVE SPRING				CAM	
	Make	Type	Size	Gap	Piston Clearance	Oil Ring Side Clearance	Comp. Ring Side Clearance	Ring End Gap	Valve Open Pressure (Av. lb.)	Valve Open Length—in.	Valve Closed Pressure (Av. lb.)	Valve Closed Length—in.	End Play	Bushing Clearance
136 Series	CH	6 Com	18	.018-.023	(z)	.0010-.0025	.0035-.005	.013-.023	I. 72 O. 124.5	1.882 1.950	37 82	2.337 2.400	.001-.005	.003-.005
180 Series	CH	6 Com	18	.018-.023	(aa)	.0015-.003	.0025-.0040	.013-.023	I. 110 O. 143	1 11/16 2	48 74	2 7/16 2 1/2	.003-.007	.005-.008
190 Series	CH	6 Com	18	.018-.023	(aa)	.0015-.0030	(cc)	.15-.023	I. 110 O. 143	1 11/16 2	48 74	2 7/16 2 1/2	.003-.007	.005-.008
400 Series	CH	(x)	18	.018-.023	(aa)	.0015-.0030	.0025-.0040	(ee)	I. 110 O. 143	1 11/16 2	48 75	2 7/16 2 1/2	.003-.007	.005-.008
470 Series	CH	(x)	18	.018-.023	(aa)	.0015-.0030	.0025-.0040	.013-.023	I. 110 O. 143	1 11/16 2	48 75	2 7/16 2 1/2	.003-.007	.005-.008
480 Series	CH	(x)	18	.018-.023	(aa)	.0015-.0030	.0025-.0040	.013-.023	I. 110 O. 143	1 11/16 2	48 75	2 7/16 2 1/2	.003-.007	.005-.008
504 Series	CH	6 Com	18	.018-.023	(aa)	.0015-.0030	.0030-.0045	.013-.023	I. 72.5 O. 124.5	1.882 1.950	37 62	2.337 2.400	.001-.005	.003-.005
590 Series	CH	J5	14	G-.025 LPG-.015	(bb)	.0015-.0035	(dd)	(ff)	I. 80 O. 116	1.750 1.812	41 60	2 1/16 2 1/8	.003-.007	.002-.007
855 Series	CH	(y)	18	.018-.023	(aa)	.0015-.0030	.0035-.0050	(gg)	I. 105 O. 138	1 11/16 2	48 75	2 7/16 2 1/2	.003-.007	.003-.008
935 Series	CH	(y)	18	.018-.023	(aa)	.0015-.0030	.0035-.0050	(gg)	I. 105 O. 138	1 11/16 2	48 75	2 7/16 2 1/2	.003-.007	.003-.008
1091 Series	CH	(y)	18	.018-.023	(aa)	.0015-.0030	.0035-.0050	(gg)	I. 105 O. 138	1 11/16 2	48 75	2 7/16 2 1/2	.003-.007	.003-.008
6156, 6182	CH	(y)	18	.018-.023	(aa)	.0015-.0030	.0035-.0050	(gg)	I. 110 O. 143	1 11/16 2	48 75	2 7/16 2 1/2	.003-.007	.003-.008

HERCULES	SIZE	OIL	IGNITION				VALVES					VALVE SPRINGS			
												Valve Open		Valve Closed	
	Number of Cylinders, Bore and Stroke	Normal Oil Pressure, Lb. at M.P.H. or R.P.M.	Breaker Point Gap	Breaker Arm Tension (oz.)	Spark Occurs °TC B-Before A-After	Spark Occurs Flywheel Teeth °TC B-Before A-After	Intake Valve Opens B-Before °TC	Intake Valve Opens B-Before Flywheel Teeth °TC	Intake Tappet Clearance for Valve Timing	Operating Tappet Clearance (Hot unless noted) Intake	Operating Tappet Clearance (Hot unless noted) Exhaust	Pressure (Av. lb.)	Length—in.	Pressure (Av. lb.)	Length—in.
IX series	.....	15-1000	.020	....	(a)	(a)	5A	Var	.006	.006	.008	42	1 1/8	21	1 7/16
ZX series	.....	15-1000	.020	....	(a)	(a)	5A	Var	.006	.006	.008	35	1 11/32	22	1 1/2
JXA, JXB, JXD, JXF JX3, JX6	.....	26-1600	.020	....	(a)	(a)	5A	Var	.010	.008	.010	68	1.594	43	1.920
QXA, QXB, QXC, QXD	.....	26-1600	.020	....	(a)	(a)	5B	Var	.006	.008	.008	37-41	1 3/32	17-19	1 11/32
WX series	.....	26-1600	.020	....	(a)	(a)	2A	Var	.010	.006	.010	102	2 3/32	50	2 11/32
QXLD	6-3 1/4x4 1/2	26-1600	.020	....	(a)	(a)	5B	Var	.006	.008	.010	37-41	1 3/32	17-19	1 11/32
JX4C, JX4D, JX4E	.....	32-1600	.020	....	(a)	(a)	5B	Var	.010	.010	.010	58	1.594	43	1.920
JXLD	6-4x4 1/2	35-1600	.020	....	(a)	(a)	5B	Var	.010	.010	.010	58	1.594	43	1.920
RXB	6-4 1/2x5 1/4	26-1600	.020	....	(a)	(a)	2A	Var	.010	.010	.016	102	2 3/32	50	2 11/32
TDXB, TDXC	6-4 1/2x5 1/4	36-1600	.020	....	(a)	(a)	5B	Var	.010	.010	.016	102	2 3/32	50	2 11/32
RXC, RXL series	.....	36-1600	.020	....	(a)	(a)	2A	Var	.010	.010	.016	102	2 3/32	50	2 11/32
HX series	.....	36-1600	.020	....	(a)	(a)	5B	Var	.015	.010	.016	O. 84 I. 50	3 1/16 2 1/16	47 27	3 1/16 3 5/8
DIX4D, DIX6D	.....	45-2900	....	....	....	....	17 1/2B	Var	.010	.010	.010	O. 49 I. 34	1.2125 1.0675	28 16	1.5625 1.4375
DJX series	.....	45-2000	....	....	....	....	12B	Var	.010	.010	.010	O. 55 I. 37	1.406 1.281	31 19	1.781 1.656
DIX6-272	6-3 1/2x4 1/4	45-2000	....	....	....	....	5B	Var	.015	.010	.016	.....	.....	.....	.....
DOO series	.....	30-1200	....	....	....	....	12B	Var	.010	.010	.010	O. 55 I. 37	1.406 1.281	31 19	1.781 1.656
DWX, DWXL series	.....	40-1600	....	....	....	....	17 1/2B	Var	.010	.016	.016	O. 94 I. 74	1 1/4 1 1/16	38 23	1 1/8 1 7/16
DRXB, DRXC	.....	30-1200	....	....	....	....	12B	Var	.016	.016	.016	O. 48 I. 30	1.449 1.335	27 17	1.944 1 3/4
DRX501	6-4 1/2x5 1/4	30-1200	....	....	....	....	15B	Var	.016	.016	.016	O. 48 I. 30	1.449 1.335	27 17	1.944 1 3/4
DFXB, DFXC, DFXD, DFXE	.....	50-1200	....	....	....	....	5B	Var	.015	.010	.016	O. 94 I. 57	2 1/16 2 1/16	55 32	3 1/16 3 5/8
DFXH	6-5 1/4x6	50-1200	....	....	....	....	5B	Var	.015	.010	.016	O. 124 I. 96	1 1/16 1 1/16	63 42	2 1/16 2 1/16
DFXH (horizontal)	6-5 1/4x6	50-1200	....	....	....	....	19B	Var	.014	.010	.016	O. 124 I. 96	1 1/16 1 1/16	63 42	2 1/16 2 1/16

HERCULES	TENSIONS		
	Cylinder Head (Lbs. ft.)	Main Bearings (Lbs. ft.)	Connecting Rod Bearings (Lbs. ft.)
IX series	40	77	42
ZX series	35	77	25
JX series	(b)	60c 70d	86
QX series	(e)	60c 70d	39
WX series	100	70c 105d	105 53f
RXB, RXC	75	105c 123d	105 115g
TDXB, TDXC	100	105c 123d	115

HERCULES	TENSIONS		
	Cylinder Head (Lbs. ft.)	Main Bearings (Lbs. ft.)	Connecting Rod Bearings (Lbs. ft.)
RXL series	100	175	158 123h
HX series	105	193c 210d	263
DIX series	158	105i 85j	150
DJX and DOO series	158	77c 95d	175
DWX, DWXL series	158	175	225k 158l
DRX series	5/8"-175 1"-280	175	175
DFX series	350	260	263

NOTES

HALL-SCOTT

a—Horizontal in-line.
b—Horizontal or vertical in-line.
c—60 @ 1000-1200 hot.
d—6:1 ratio 120 lb.
e—5.5:1 ratio 110 lb. @ 1000.
f—5.7:1 ratio standard 129 lb. @ 1000.
g—6:1 ratio standard 120 lb.
h—Gasoline—5.5:1 ratio standard 135 lb. L.P.G. —5.7:1 ratio 200 lb.
i—Gasoline—6:1 ratio standard 116 lb. L.P.G.— 9:1 ratio 200 lb.
j—Gasoline—6.4:1 ratio standard 128 lb. L.P.G. —9:1 ratio 210 lb.
k—Gasoline—6.4:1 ratio standard 128 lb. L.P.G. —8.8:1 ratio 205 lb.
l—Gasoline—5B. L.P.G.—10B.
m—Gasoline—6B. L.P.G.—11B.
n—Gasoline—2B. L.P.G.—4B.
o—Gasoline—2B. L.P.G.—8B.
p—Mark on flywheel.
q—Mark on flywheel—Gasoline "5", L.P.G. "10".
r—Gasoline—1/8B. L.P.G.—1 3/8B.
s—Gasoline—1/8B. L.P.G.—5/8B.
t—Mark on flywheel 1 1/2B.
u—Intake 30°-30 1/2°, exhaust 45°-45 1/2°.
v—Intake 29 1/2°-30°, exhaust 44 1/2°-45°.
w—44 1/2°-44 3/4°.
x—Intake side 9 Com., exhaust side 6 Com.
y—Gasoline: Intake side 9 Com., exhaust side 6 Com. L.P.G.: Intake side 6 Com., exhaust side 4 Com.
z—Eccentric and taper ground.
aa—Cam ground eccentric.
bb—Eccentric and taper cam ground.
cc—Comp. ring .0030-.0045, 2nd .002-.0035.
dd—Comp. ring .0050-0035, 2nd .030-.035.
ee—Comp. .020-.030. Oil .13-.23.
ff—Comp. .017-.027. Others .013-.023.
gg—Top comp. .020-.030. Others .013-.023.

HERCULES

a—Varies with compression ratio.
b—75 ft. lbs. on row of screws on manifold side; 85 ft. lbs. on all others; 65 ft. lbs. when studs are used.
c—Center & rear.
d—Front and intermediate.
e—90 ft. lbs. on row of screws on manifold side; 100 ft. lbs. on all others; 60 ft. lbs. when studs are used.
f—Connecting rod 7/8 in.
g—Connecting rod 7/8 in.
h—Babbit.
i—Front, center and rear.
j—Intermediate.
k—Connecting rod 1 1/2 in.

ENGINE DATA

WAUKESHA LEYLAND

MODEL	SIZE	OIL	C.P.	IGNITION						VALVES								
	Number of Cylinders, Bore and Stroke	Normal Oil Pressure, Lb. at M.P.H. or R.P.M.	Compression, psi at Cranking Speed	Distributor Rotation	Cam Angle (deg.)	Breaker Point Gap	Breaker Arm Tension (oz.)	Spark Occurs °TC B-Before A-After	Spark Occurs Flywheel Teeth °TC B-Before A-After	Intake Valve Opens B-Before A-After °TC	Intake Valve Opens B-Before A-After Flywheel Teeth °TC	Intake Tappet Clearance for Valve Timing	Operating Tappet Clearance (Hot unless noted) Intake	Operating Tappet Clearance (Hot unless noted) Exhaust	Seat Angle (deg.)	Face Angle (deg.)	Guide Clearance
WAUKESHA																	
190 GLB	3¾x4	12–15a	120	Cw	31–37	.018	....	Var	Var	8B	3B	.010	.010C	.016C	(c)	....	(g)
195GKA	4½x4	40a	110	Cw	31–37	.018	....	Var	Var	18B	6B	.034b	.015C	.023	(d)	....	(g)
MZA	4½x4¾	40–1500	105	Cw	31–37	.018	....	Var	Var	8B	3B	.008	.009C	.020C	....	....	(g)
135GKB, 135GZB	4½x5	30–1800	120	Cw	31–37	.018	....	Var	Var	15B	5B	.040b	.011C	.023C	(d)	....	(g)
140GK, 140GKB, 140GZB		40a	120	Cw	31–37	.018	....	Var	Var	15B	5B	.056b	.013C	.019C	(e)	....	(g)
145GK	5¼x6	40a	115	Cw	31–37	.018	....	Var	Var	15B	6B	.064b	.013C	.024C	(e)	....	(g)
145GKB, 145GZB		40a	120	Cw	31–37	.018	....	Var	Var	15B	6B	.064b	.013C	.030C	(e)	....	(g)
WAKB	6¼x6½	40–1500	115	Cw	31–37	.018	....	Var	Var	TC	0	.012	.014C	.023C	(f)	....	(h)
190DLCA	3¾x4	15–1500	375			Diesel				8B	3B	.010	.010C	.020C	(c)	....	(g)
195DLCA	4x4	30–2000	375			Diesel				8B	3B	.010	.010C	.022C	(c)	....	(g)
135DKB, 135DKBS	4½x5	40–2200	450			Diesel				11B	3B	.052b	.011C	.023C	(f)	....	(i)
148DKB, 148DKBS	5¼x6	40–1500	435			Diesel				10B	3B	.024b	.015C	.028C	(c)	....	(i)
WAKDB, WAKDBS	6¼x6½	40–1300	450			Diesel				TC	0	.012	.014C	.024C	(e)	....	(g)
FAGEOL, FAGEOL-LEYLAND																	
Fag FTC-180 (gas and lpg)	6-4¼x4¾	45–55	160	Ccw	31–37	.022	19–23	4B	....	12B		.015C	.015C	.018C	45	45	.002
Fag FTC-200 (gas and lpg)	6-4⅝x5	@2400	155	Ccw	31–37	.022	19–23	4B	....	12B		.015C	.015C	.018C	45	45	.002
Fag FTC-210 (gas and lpg)	6-4½x5		150	Ccw	31–37	.022	19–23	4B	....	12B		.015C	.015C	.018C	45	45	.002
Fag. 44 (gasoline)	4-2½x2¼	35–50 @3600	136	Ccw	44	.020–.024	17–20	12B	....	5B	....	....	.007–.009	.007–.009	45	45	(b)
FLDV-600, FLDH-600	6-4.8x5½	70–1800	(a)	....	....	....	....	....	....	10B	1.72	.020C	.020C	.020C	30	29½	(c)
FLDV-680, FLDH-680	6-5x5¾	70–1800	(a)	....	....	....	....	....	....	10B	1.72	.020C	.020C	.020C	30	29½	(d)

MODEL	SPARK PLUGS		PISTONS, RINGS			VALVE SPRINGS				CAM	
						Valve Open		Valve Closed			
	Size	Gap	Piston Clearance (Skirt)	Oil Ring Side Clearance	Comp. Ring Side Clearance	Pressure (Av. lb.)	Length—in.	Pressure (Av. lb.)	Length—in.	End Play	Bushing Clearance
190-GLB	18	.025	.0035	(r)	(s)	71	1 1/16	48	1 1/16	.003–.0065	.0015–.003
195-GKA	18	.025	.004	(r)	(s)	124±10	1 1/16	46±4	2 3/16	.003–.0065	.0015–.003
MZA	18	.025	.004	.0015	.0015–.003	101	1 1/16	64	2 3/16	.003–.0065	(s)
135-GKB, 135-GZB	14	.025	.0035	....	....	162±8	1 1/16	82±4	2 1/16	.003–.0065	(s)
140-GK	14	.025	(j)	(r)	.0015–.003	O. 86	1 1/16	31	2 1/16	....	.002–.0025
						I. 55	1 1/16	28	1 1/16		
140-GKB, 140-GZB	14	.025	.0065	(r)	(s)	O. 127	1 1/16	67	2 1/16	....	.002–.0025
						I. 70	1 1/16	30	1 1/16		
145-GK	14	.025	(k)	.009	.003–.0045	O. 118	2 5/16	48	2 3/16	....	.002–.0025
						I. 81	2 1/16	32	2 3/16		
145-GKB	14	.025	.0075	(r)	....	O. 158	2 5/16	67	2 3/16	....	.002–.0025
						I. 100	2 1/16	42	2 3/16		
145-GZB	14	.025	.0075	(r)	....	O. 118	2 5/16	48	2 3/16	....	.002–.0025
						I. 81	2 1/16	32	2 3/16		
WAKB	18	.025	....	.0025	.003–.0045	....	....	....	....	....	(s)
190-DLCA	Diesel		....	1	1	71±6	1 1/16	48±4	1 1/16	....	.0015–.003
195-DLCA	Diesel		....	1	1	124±10	1 1/16	46±4	2 3/16	....	.0015–.003
135-DKB, 135-DKBS	Diesel		....	.0025	1	162	2 1/16	82	2 3/16	.003–.0065	(s)
148-DKB, 148-DKBS	Diesel		.007	.0025	1	O. 118	2 5/16	48±4	2 3/16	....	(s)
						I. 81	2 1/16	32±3	2 3/16		
WAKDB, WAKBS	Diesel		.009	.0025	1	....	....	....	....	....	(s)
FAGEOL, FAGEOL-LEYLAND											
Fag FTC-180, 200 (gas and lpg)	14	.020	.0025	.002–.003	.0025–.004	68	1 1/16	137	1 1/16	(e)	.004–.0055
Fag FTC-210 (gas and lpg)	14	.020	.002–.004	.0025–.003	.0025–.004	68	1 1/16	137	1 1/16	(e)	.004–.0055
Fag 44 (gasoline)	14	.025	.003–.0035	.0015–.003	.0015–.003	85–91 (j)				.003–.005	.0015–.0027
FLDV-600, FLDH-600	....	....	(g)	(h)	(i)	134	I. 1.230 O. 1.481	....	I. 1.731 O. 1.981	....	.004–.0055
FLDV-680, FLDH-680	....	....	(g)	(h)	(i)	134	I. 1.230 O. 1.481	....	I. 1.731 O. 1.981	....	.004–.0055

MODEL	Generator Voltage	Starter Voltage (No Load)	RODS, PINS: Pin Clearance	RODS, PINS: Rod Bearing Clearance	RODS, PINS: Rod Side Clearance	C. SHAFT: End Play	C. SHAFT: Main Bearing Clearance	C. SHAFT: End Thrust Carried on . . .	TENSIONS: Cylinder Head (Ft. Lb.)	TENSIONS: Main Bearings (Ft. Lb.)	TENSIONS: Connecting Rod Bearings (Ft. Lb.)
190-GLB	6	6	....	.0018	(q)	.0045	(p)	3 mn	92–100	109–113	44–58
195-GKA	6	6	.0003	(p)	(q)	.0056	(p)	r. int	92–100	108–113	75–77
MZA	6	6	....	.002	.025	.003	.0025	....	73–75	96–100	67–69
135-GKB, 135-GZB	12	12	.0003	.00225	.011	.007	.003	r. mn	175	129–133	96–100
140-GK, 140-GKB, 140-GZB	12	12	.0011	.002	.013	.005	.003	r. mn	175	129–133	96–100
145-GK, 145-GKB	12	12	.0009	.002	.013	.005	.003	r. mn	(m)	267–275	67–69
145-GZB	12	12	.0009	.002	.013	.005	.0035	r. mn	(n)	267–275	67–69
WAKB	12	12	.0004	.0015–.004	.008–.0014	.0055	.003–.0055	f. mn	140–150	292–300	86–88
190-DLCA	12	12	(o)	(p)	(q)	.0035–.0075	.0015–.0045	r. int	98–100	100–113	67–69
195-DLCA	12	12	.0003	.00125	(q)	.0045–.0085	.002–.0035	r. int	98–100	100–113	67–69
135-DKB, 135-DKBS	24	24	....	.001–.0035	.008–.014	.005–.009	.0015–.0045	r. mn	100–133	133–135	86–90
148-DKB, 148-DKBS	24	24	....	.0015–.004	.008–.014	.005–.013	.002–.0047	f. mn	250–267	292–300	67–69
WAKDB, WAKDBS	24	24	....	.002–.0045	....	.005	.0025–.0059	f. mn	250–267	292–300	92–96
FAGEOL, FAG-LEY											
Fag FTC series	14 (n)		(m)	.0015–.0035	.0045–.0095	.005–.014	.0015–.004	c. mn.	85–90	85–90	80–90
Fag 44	8 (o)	5 (p)	(q)	.0005–.003	.0005–.003	.003–.010	.0015–.003	r. mn.	(q)	(s)	(t)
Fag-Ley F.L.D.V. & D.H.			.00045–.001	.0018–.0037	.008–.013	.004–.010	.0020–.0042	c. jnl.	(u)	260–270	(v)

FAGEOL-LEYLAND	LUBRICATION: Engine — Viscosity and Temperature Range	LUBRICATION: Engine Oil Capacity	FAN BELT: Circumference (In.)	FAN BELT: Width (In.)	FAN BELT: Angle of "V" (Deg.)
FAGEOL-LEYLAND					
Fag. F.T.C. 180, 200, 210	40 @ 70° or over 30 @ 45°–80° 20 @ 15°–55° 10 @ 0°–25°	12			
Fageol 44	30 @ 65° or over 20 below 65°	2	36.19	11/32	34
FLDV 600, 680	40 above 90° 30 @ 32°–90° 10 @ 10°–32°	20	62	5/8	40
FLDH 600, 680	40 above 90° 30 @ 32°–90° 10 @ 30°–32°	16	51 5/8	11/32	40 W. Pump
			75 5/8	11/32	40 Compressor
			47 1/2	11/32	40 Alternator

NOTES

WAUKESHA

a—At governed speed.
b—To check timing, set lash at value given at valve, then valve should open at TDC.
c—Intake 45, exhaust 45.
d—Intake 44.5, exhaust 44.5.
e—Intake 30, exhaust 45.

FAGEOL, FAG-LEY

a—450–475 @ 300 rpm. Cold engine.
b—Intake, .0015–.003; Exhaust, .002–.004.
c—Inlet, .0025–.00375; Exhaust, .003–.00425.
d—Inlet, .002–.00375; Exhaust, .004–.00525.
e—Positive adjustment, no end play.
f—Compression, .007–.017. Oil, .013–.023.
g—Type a, .006–.009; Type b, .0079–.010.
f—Intake 30, exhaust 44.5.
g—Intake .0015–.0035, exhaust .0025–.0045.
h—Intake .0015–.0035, exhaust .0035–.0045.
i—Intake and exhaust .0015–.0035.
j—Cast iron .0045, aluminum .0065.
k—Cast iron .0055, aluminum .0075.
l—Tapered.

h—Top, .004–.006; Bottom, .003–.005.
i—Tapered sides.
j—With valve spring at 1 3/4.
k—14 mm., .020 gap.
l—14 mm., .025 gap.
m—.0001 tight to .0001 loose in piston.
n—At 60 amps.
o—At 1800–2000 rpm. Starter brush spring tension, 33–44 oz.
m—Long 175, short 150.
n—Long 200, short 175.
o—Varies with material.
p—.0005–.003.
q—.0075–.0135.
r—.0015–.0030.
s—.002–.0035.

p—Starter amperage (no load), 68; brush spring tension, 15–20 oz.
q—.0004 loose, .0003 tight.
r—Integral with cylinder block.
s—150–180 inch-pounds.
t—200–280 inch-pounds.
u—145 foot-pounds for 7/8 studs, 80 foot-pounds for 1/2 studs.
v—120 foot-pounds or next slot for cotter pin.

ENGINE DATA

CONTINENTAL LE ROI

CONTINENTAL	Number of Cylinders, Bore and Stroke	Normal Oil Pressure Lb. at M.P.H. or R.P.M.	Compression Pressure at Cranking Speed	VALVES				Spark Plug		VALVE SPRINGS				TENSIONS		
				Intake Valve Opens B-Before A-After		Operating Tappet Clearance (Hot unless noted)				Valve Open		Valve Closed				
				°TC	Flywheel Teeth°TC	Intake	Exhaust	Size	Gap	Average Pressure (Lb.)	Length (In.)	Average Pressure (Lb.)	Length (In.)	Cylinder Head (Lb.-Ft.)	Main Bearings (Lb.-Ft.)	Connecting Rod Bearings (Lb.-Ft.)
F4124	4-3 1/8x4 3/8	35-40	115	TC	.....	.014	.014	18mm	.025	100	1 27/64	50	1 45/64	†	*	*
F4162	4-3 1/8x4 3/8	35-40	115	TC	.....	.014	.014	18mm	.025	100	1 27/64	50	1 45/64	†	*	*
F6186	6-3x4 3/8	35-40	115	2B	.....	.014	.014a	18mm	.025	103-110	1 5/8	47-53	1 31/64	†	*	*
F6209	6-3 1/8x4 3/8	35-40	115	2B	.....	.014	.014	18mm	.025	103-110	1 5/8	47-53	1 31/64	†	*	*
F6226	6-3 1/8x4 3/8	30-40	115	2B	.....	.014	.014	18mm	.025	103-110	1 5/8	47-53	1 31/64	†	*	*
M6271	6-3 5/8x4 3/8	40-50	115	6 1/2B	.....	.017	.020	18mm	.025	119	1.521	61	1 7/8	†	*	*
M6290	6-3 5/8x4 3/8	40-50	115	6 1/2B	.....	.017	.020	18mm	.025	119	1.521	61	1 7/8	†	*	*
K6330	6-4x4 1/2	40-50	.....	22B	.....	.018	.022	18mm	.025					†	*	*
M6330	6-4x4 3/8	40-50	115	6 1/2B	.....	.017	.020	18mm	.025	119	1.521	61	1 7/8	†	*	*
B6371	6-4 1/8x4 5/8	40-50	115	6 1/2B	.....	.017	.022	18mm	.025	144	1.316	69	1.617	†	*	*
T6371	6-4 1/8x4 5/8	40-60	115	20B	.....	.018	.022	18mm	.025	O. 130 I. 61	1.110 1.016	69 29	1.548 1.453	†	*	*
B6427	6-4 1/8x4 7/8	40-50	115	16B	.....	.017	.022	18mm	.025	144	1.316	69	1.617	†	*	*
T6427	6-4 1/8x4 7/8	40-60	115	20B	.....	.018	.022	18mm	.025	O. 130 I. 61	1.110 1.016	69 29	1.548 1.453	†	*	*
U6501	6-4 1/2x5 1/4	40-50	120	17B	.....	.016	.024	18mm	.025					†	*	*
R6513	6-4 1/2x5 5/8	50-60	120	19B	.....	.018	.024	18mm	.025	O. 160 I. 90	1.617 1.367	67 38	2.117 1.867	†	*	*
R6572	6-4 3/4x5 5/8	50-60	120	19B	.....	.018	.024	18mm	.025	173	1 3/4	78	2 1/4	†	*	*
R6602	6-4 7/8x5 5/8	50-60	120	17B	.....	.018	.024	18mm	.025	O. 160 I. 90	1.617 1.367	67 38	2.117 1.867	†	*	*
S6749	6-5 1/8x5 1/2	40-60	120	19B	.....	.020	.024	18mm	.025	O. 200	2 1/8	90	2 3/4	†	*	*
S6820	6-5 5/8x5 1/2	40-60	120	17B	.....	.020	.024	18mm	.025	O. 200 I. 100	2 1/8 2 1/16	90 45	2 3/4 2 1/16	†	*	*
SD6802	6-5 1/8x5 1/2	40-60	375	16B	.....	.020	.024	.....	Diesel	204	2 1/16	93	2 5/8	†	*	*
TD6427	6-4 1/8x4 7/8	40-60	375	20B	.....	.018	.022	.....	Diesel	I. 100 O. 130 I. 61	2 1/16 1.110 1.016	45 69 29	2 1/16 1.548 1.453	†	*	*
RD6572	6-4 3/4x5 5/8	40-60	375	19B	.....	.020	.024	.....	Diesel	173	1 3/4	78	2 1/4	†	*	*
V6803	8-4 5/8x4 1/4	50-3000	.....	14B	.....	.020	.028	14mm	.025	O. 179 I. 120	1 13/16 1 7/16	81 48	2 1/16 1 7/16	100-110	85-95	85-95
VD6603	8-4 3/4x4 1/4	50-3000	.....	10B	.....	.020	.024	.....	Diesel	185	1 11/16	78	2 1/4	100-110	85-95	85-95

NOTES

CONTINENTAL

†—3/16", 35–40; 1/16", 70-75; 1/2", 90–100; 3/16", 130–140; 5/8", 145–155.

*—1/16", 20–25; 5/16", 35–40; 1/16", 70–75; 1/2", 85–95; 1/16", 110–100.

a—With Roto Valve, .010.

O—Outer.
I—Inner.

LE ROI

a—0.025–0.030.
b—Cam ground thrust face .002–.0035.
c—Cam ground thrust face .003–.005.

d—Top .002–.0045. Two lower .001–.003.
e—Top .002–.005. Two lower .0015–.0035.
f—Oil ring .015–.023. Compression rings .012–.020.
g—Oil ring .018–.033. Compression rings .015–.030.
h—Piston pin pushing clearance .0003–.0008.
i—5°B @ 600 rpm, 35°B @ 2800 rpm.
j—4°B @ 600 rpm, 32°B @ 2600 rpm.

LE ROI	SIZE	OIL	C.P.	IGNITION						VALVES							
	Number of Cylinders, Bore and Stroke	Normal Oil Pressure, Lb. at M.P.H. or R.P.M.	Compression, psi at Cranking Speed	Distributor Rotation	Cam Angle (deg.)	Breaker Point Gap	Breaker Arm Tension (oz.)	Spark Occurs °TC B-Before A-After	Spark Occurs Flywheel Teeth °TC B-Before A-After	Intake Valve Opens B-Before A-After: °TC	Intake Valve Opens B-Before A-After: Flywheel Teeth °TC	Intake Tappet Clearance for Valve Timing	Operating Tappet Clearance (Hot unless noted): Intake	Operating Tappet Clearance (Hot unless noted): Exhaust	Seat Angle (deg.)	Face Angle (deg.)	Guide Clearance
TH540-V8	8-4½x4½	35-2000	125	Cw	21-30	.016	19-23	(i)	....	TDC	....	....	.013	.013	45	45	I. .0022 E. .0032
TH844-V8	8-5½x4⅞	45-2000	125	Ccw	21-30	.016	19-23	(j)	....	2°14' A	....	....	.013	.013	45	45	I. .0025 E. .0035

LE ROI	SPARK PLUGS				PISTONS, RINGS				VALVE SPRINGS				CAM	
									Valve Open		Valve Closed			
	Make	Type	Size	Gap	Piston Clearance	Oil Ring Side Clearance	Comp. Ring Side Clearance	Ring End Gap	Pressure (Av. lb.)	Length-in.	Pressure (Av. lb.)	Length—in.	End Play	Bushing Clearance
TH540-V8	CH	J6	14	(a)	(b)	.0029	(d)	(f)	110	1.6	56	2.0	.0145	.0025
TH844-V8	CH	J6	14	(a)	(c)	.0025	(e)	(g)	136	1.8	61	2.25	.0145	.0025

LE ROI	GENERATOR			STARTER						RODS, PINS			C. SHAFT		
	Brush Spring Tension	Max. Charge Rate	Voltage	Brush Spring Tension	Amp. (No Load)	Voltage (No Load)	Torque (Lock)	Amp. (Lock)	Voltage (Lock)	Pin Clearance	Rod Bearing Clearance	Rod Side Clearance	End Play	Main Bearing Clearance	End Thrust Carried on . . .
TH540-V8	20	50	12	36-40	65	11.4	44	725	5	(h)	.0023	.0135	.006	.0029	center
TH844-V8	20	50	12	36-40	65	11.4	44	725	5	(h)	.0034	.0130	.006	.0035	center

LE ROI	BATTERY					TENSIONS			LUBRICATION		FAN BELT		
	Amp. Hour Capacity	Number of Plates	Terminal Grounded	S.A.E. Group Number	A.A.B.M. Group Number	Cylinder Head (Ft. Lb.)	Main Bearings (Ft. Lb.)	Connecting Rod Bearings (Ft. Lb.)	Engine Oil Capacity (Qt.)	Engine Oil Viscosity and Temperature Range	Circumference (In.)	Width (In.)	Angle of "V" (Deg.)
TH540-V8	145	21	Pos	4D	...	90	95	60	12	40 above 90° 30 @ 90°-32° 20W @ 32°-0° 10W below 0°	56½	7/8	42
TH844-V8	145	21	Pos	4D	...	90	150	90	24		48 15/16	1/2	38

PASSENGER CAR DATA

FORD CHEVROLET STUDEBAKER PLYMOUTH DODGE PONTIAC

ENGINE	SIZE	OIL	C.P.	IGNITION						VALVES							
	Number of Cylinders, Bore and Stroke	Normal Oil Pressure, Lb. at M.P.H. or R.P.M.	Compression, psi at Cranking Speed	Distributor Rotation	Cam Angle (deg.)	Breaker Point Gap	Breaker Arm Tension (oz.)	Spark Occurs °TC B-Before A-After	Spark Occurs Flywheel Teeth °TC B-Before A-After	Intake Valve Opens B-Before A-After °TC	Intake Valve Opens B-Before A-After Flywheel Teeth °TC	Intake Tappet Clearance for Valve Timing	Operating Tappet Clearance (Hot unless noted) Intake	Operating Tappet Clearance (Hot unless noted) Exhaust	Seat Angle (deg.)	Face Angle (deg.)	Guide Clearance
CHEVROLET (6 cyl.)	6-3 7/8 x3 1/2	30–1185			30	.019	21	TC		10 1/2B			Hyd	Hyd	(i)		.0019
CHEVROLET (8 cyl.)	8-3 7/8 x3	30–1185			30	.019	21	4B		(f)			(g)	(h)	46		(j)
DODGE (6 cyl.)	6-3 1/4 x4 1/8	45–1500			39	.020	19	2B		12B		.014	.010	.010	45		(k)
DODGE (8 cyl.)	8-3 5/16 x3 1/8	60–1500			31	.017	19	4B		14B		VTS	Hyd	Hyd	45		(l)
DODGE (8 cyl.)	8-3 5/16 x3 1/2	60–1500			31	.017	19	6B		11B		VTS	Hyd	Hyd	45		(l)
FORD (6 cyl.)	6-3 5/8 x3 1/2	50–2000			37	.025	19	4B (m)		24B		.019	.019	.019	45 1/2		(n)
FORD (8 cyl.)	8-3 5/8 x3 1/2	50–2000			27	.015	19	3B (m)		12B		.019	.018	.019	45 1/2		(n)
FORD (8 cyl.)	8-3 5/8 x3 1/2	50–2000			27	.015	19	3B (m)		12B		.019	.019	.019	45 1/2		(n)
PLYMOUTH (6 cyl.)	6-3 1/4 x4 1/8	45–1500			39	.020	19	2B		12B		.014	.010	.010	45		(k)
PLYMOUTH (8 cyl.)	8-3 1/8 x3 1/4	60–1500			29	.017	19	4B		14B		VTS	Hyd	Hyd	45		(l)
PLYMOUTH (8 cyl.)	8-3 1/8 x3 1/4	60–1500			29	.017	19	4B		14B		VTS	.012	.020	45		(l)
PLYMOUTH (8 cyl.)	8-3 1/8 x3 1/4	60–1500			36	.017	19	4B		9B		VTS	.010	.018	45		(l)
PONTIAC (8 cyl.)	8-3 1/8 x3 1/4	40–40			30	.016	21	5B		(o)		ER	Hyd	Hyd	(p)		.0005
STUDEBAKER (6 cyl.)	6-3x4 5/8	40–1500			39	.020	19	2B		15B		.020	.016C	.016C	45		.0025

ENGINE	SPARK PLUGS				PISTONS, RINGS				VALVE SPRINGS				CAM	
									Valve Open		Valve Closed			
	Make	Type	Size	Gap	Piston Clearance	Oil Ring Side Clearance	Comp. Ring Side Clearance	Ring End Gap	Pressure (Av. lb.)	Length—In.	Pressure (Av. lb.)	Length—In.	End Play	Bushing Clearance
CHEVROLET (6 cyl.)	AC	44	14	.036	.0008			(q)	2.2	1.462	78	1.858		
CHEVROLET (8 cyl.)	AC	44	14	.036	.0008			(r)	160	1.386	80	1.696		
DODGE (6 cyl.)	AL	AR80	14	.035	.0007			.015	115	1.380	42	1.750		
DODGE (8 cyl.)	AL	AR52	14	.035	.0010			.015	140	1.310	53	1.690		
FORD (All)	CH	870	14	.034	.0017			(s)	166	1.390	75	1.780		
PLYMOUTH (6 cyl.)	AL	AR80	14	.035	.0007			.015	115	1.380	42	1.750		
PLYMOUTH (8 cyl.) 270 cu. in.	AL	AR52	14	.035	.0010			.015	140	1.310	53	1.690		
PLYMOUTH (8 cyl.) 277 cu. in.	AL	AR52	14	.035	.0010			.015	166	1.310	72	1.690		
PLYMOUTH (8 cyl.) 303 cu. in.	AL	45-250	14	.035	.0010			.015	166	1.310	72	1.690		
PONTIAC (8 cyl.)	AC	44	14	.036	.0021			(t)	(u)	(v)	58	1.530		
STUDEBAKER (6 cyl.)	CH	J7	14	.031	SFF			(w)	98	1.313	51 1/2	1.656		

NOTES

(a)—Nos. 1 and 2, .0016; Nos. 3 and 4, .0018.
(b)—Same as Dodge 8 cyl. with Powerflite and/or power steering.
(c)—Coronet, .0003; Royal and Custom Royal, .0002.
(d)—270 cu. in. engine, .0010; 277 and 303 cu. in. engine, .0015.
(e)—No. 1, .0015; Nos. 2, 3 and 4, .0018; No. 5, .0021.
(f)—18B with std. trans.; 26 1/2B with Powerglide; 31 3/4B with two four-barrel carburetors.
(g)—Hydraulic valve lifters std.; .008 with two four-barrel carburetors.
(h)—Hydraulic valve lifters std.; .018 with two four-barrel carburetors.
(i)—Intake, 31; exhaust, 46.
(j)—Intake, .0019; exhaust, .0024.
(k)—Intake, .0020; exhaust, .0040.
(l)—Intake, .0020; exhaust, .0030.
(m)—6B with Fordomatic.
(n)—Intake, .0015; exhaust, .0025.
(o)—22B with std. trans.; 27B with Hydramatic.
(p)—Intake, 30; exhaust, 45.
(q)—Compression, .012; oil, .035.
(r)—Compression, .014; oil, .035.
(s)—Compression, .015; oil, .035.
(t)—Compression, top, .015; bottom, .014; oil, .025.
(u)—Std. trans., 108; Hydramatic, 112.
(v)—Std. trans., 1.160; Hydramatic, 1.130.
(w)—Compression, .011; oil, .012.
AC—AC Spark Plug Div.
AL—The Electric Auto-Lite Co.
C—Cold.
CH—Champion Spark Plug Co.
ER—End of ramps used for valve timing
Hyd—Hydraulic valve lifters.
N—Negative.
Neg—Negative.
No—None.
P—Positive.
SFF—Selective feeler fit.
TC—Top center.
VTS—Valve train solid.

ENGINE	GENERATOR			STARTER						RODS, PINS			C. SHAFT		
	Brush Spring Tension	Max. Charge Rate	Voltage	Brush Spring Tension	Amp. (No Load)	Voltage (No Load)	Torque (Lock)	Amp. (Lock)	Voltage (Lock)	Pin Clearance	Rod Bearing Clearance	Rod Side Clearance	End Play	Main Bearing Clearance	End Thrust Carried on
CHEVROLET (6 Cyl.)	.....	25	14.5	.....	65	10.4	12	415	5.8	.0002	.0018	.008	.007	(a)	3
CHEVROLET (8 Cyl.)	.....	25	14.5	.....	65	10.4	12	415	5.8	.0002	.0018	.011	.004	.0021	5
DODGE (6 Cyl.)	.....	35	14.6	.....	50 (b)	10.0	5 (b)	210 (b)	4.0	.0003	.0010	.009	.005	.0010	4
DODGE (8 Cyl.)	.....	35	14.6	.....	60	10.0	6½	240	4.0	(c)	.0010	.010	.005	.0010	3
FORD (6 Cyl.)	.....	30	15.0	.....	120	12.0	15½	550	5.0	.0002	.0014	.006	.006	.0013	3
FORD (8 Cyl.)	.....	30	15.0	.....	120	12.0	15½	550	5.0	.0002	.0018	.011	.004	.0015	3
PLYMOUTH (6 Cyl.)	.....	35	14.6	.....	50 (b)	10.0	5 (b)	210 (b)	4.0	.0003	.0010	.009	.005	.0015	4
PLYMOUTH (8 Cyl.)	.....	35	14.6	.....	50 (b)	10.0	5 (b)	210 (b)	4.0	.0003	(d)	.010	.005	(d)	3
PONTIAC (8 Cyl.)	.....	25	14.3	.....	85	10.2	12½	440	5.4	.0002	.0019	.009	.006	(e)	4
STUDEBAKER (6 Cyl.)	.....	30	14.6	.....	70	11.2	.....	.....	.....	.0002	.0011	.007	.005	.0014	1

MODEL	ENGINE	BATTERY					FRONT END				CAPACITIES				FAN BELT		
		Amp. Hour Capacity	Number of Plates	Terminal Grounded	S.A.E. Group Number	A.A.B.M. Group Number	Toe-In (In.)	Camber (Deg.)	Caster (Deg.)	King Pin Slant (Deg.)	Engine Oil (Qt.)	Transmission Oil (Pt.)	Rear Axle Oil (Pt.)	Cooling System Capacity (Qt.)	Circumference (In.)	Width (In.)	Angle of "V" (Deg.)
CHEVROLET (6 Cyl.)	Own	53	54	Neg	.....	.....	1/2-1	0-1P	1/2P-1 1/2P	4	5	2	4	16	40 1/2	5/8	41
CHEVROLET (8 Cyl.)	Own	53	54	Neg	.....	.....	1/2-1	0-1P	1/2P-1 1/2P	4	4	2	4	16	54 1/2	5/8	41
DODGE (6 Cyl.)	Own	50	54	Neg	2SM	.....	1/8	1/4N-1/4P	0-2N	5 1/2	5	2 1/4	3 1/4	13	49	5/8	36 1/2
DODGE (8 Cyl.) 270 cu. in.	Own	50	54	Neg	2SM	.....	1/8	1/4N-1/4P	0-2N	5 1/2	5	2 1/4	3 1/4	19	57 1/2	5/8	36 1/2
DODGE (8 Cyl.) 315 cu. in.	Own	60	66	Neg	2SM	.....	1/8	1/4N-1/4P	0-2N	5 1/2	5	2 1/4	3 1/4	26	60	5/8	36 1/2
FORD (6 Cyl.)	Own	55	66	Neg	.....	.....	1/8-1/4	1/4P-1/4P	0-1 1/2P	7	4	3	3 1/2	14 1/2	39 11	5/8	38
FORD (8 Cyl.)	Own	55	66	Neg	.....	.....	1/8-1/4	1/4P-1/4P	0-1 1/2P	7	5	3	3 1/2	19	45 1/4	5/8	38
PLYMOUTH (6 Cyl.)	Own	50	54	Neg	2SM	.....	1/8	1/4N-1/4P	0-2N	5 1/2	5	2 1/4	3 1/4	13	49	5/8	36 1/2
PLYMOUTH (8 Cyl.) 270 cu. in.	Own	50	54	Neg	2SM	.....	1/8	1/4N-1/4P	0-2N	5 1/2	5	2 1/4	3 1/4	19	60	5/8	36 1/2
PLYMOUTH (8 Cyl.) 277 cu. in.	Own	50	54	Neg	2SM	.....	1/8	1/4N-1/4P	0-2N	5 1/2	5	2 1/4	3 1/4	19	60	5/8	36 1/2
PLYMOUTH (8 Cyl.) 303 cu. in.	Own	50	54	Neg	2SM	.....	1/8	1/4N-1/4P	0-2N	5 1/2	5	2 1/4	3 1/4	20	55	5/8	36 1/2
PONTIAC (8 Cyl.)	Own	53	54	Neg	.....	.....	0	0-1P	1/2N-1 1/2N	11 1/2	5	2 1/2	3 1/2	22 3/4	50 11	5/8	36
STUDEBAKER (6 Cyl.)	Own	50	54	Neg	2SM	.....	1/8-1/4	0-1P	1N-2 1/2N	6	5	1 3/4	2 1/2	11	40	5/8	43

MODEL WITH STANDARD ENGINE	LUBRICATION						
	Engine	Transmission		Rear Axle		Steering Gear	
	Viscosity and Temperature Range	Summer	Winter	Summer	Winter	Summer	Winter
CHEVROLET (All)	20 or 20W above 32°; 20W @ 10° to 32°; 10W @ −10° to 10°	90	90	90	90	.....	.....
DODGE (All)	30 above 32°; 20W @ 10° to 32°; 10W @ −10° to 10°	80	80	90	90	.....	.....
FORD (All)	20 or 20W above 30°; 10 or 10W @ −10° to 30°; 5W below −10°	80	80	90	90	.....	.....
PLYMOUTH (All)	30 above 32°; 20W @ 10° to 32°; 10W @ −10° to 10°	80	80	90	90	.....	.....
PONTIAC (All)	20 above 32°; 20W @ 10° to 32°; 10W @ −10° to 10°	80 or 90	80 or 90	90	90	.....	.....
STUDEBAKER (6 Cyl.)	30 above 32°; 20 @ 10° to 32°; 10W @ −10° to 10°	90	90	90	90	.....	.....

POWER RATINGS of

Showing maximum and net horsepower, maximum torque, weight

ENGINE MAKE AND MODEL	Number of Cylinders Bore and Stroke (In.)	MAX. BRAKE H.P. at R.P.M.		Piston Displacement (Cu. In.)	Compression Ratio	TORQUE	Engine Weight Without Carburetor or Ignition (Lb.)
		With Bare Engine	With Standard Accessories*			Maximum Torque at R.P.M. (Lb. Ft.)	
GASOLINE							
ALLIS-CHALMERS							
LO-525	6-4 1/2x5 1/2	157-2400	139-2400	525.0	5.00	400-1200 (BE)	1195
6-MO-893	6-5 1/2x6	199-2000	170-2000	893.0	5.50	670-1000 (BE)	2400
6-MO-970	6-5 1/2x6 1/2	200-1800	171-1800	970.0	5.43	720- 800 (BE)	2400
BRENNAN							
75	6-3 1/4x4 1/2	90-3500	75-3300	230.3	6.70	175-1000 (EA)	710
B-70	6-4x5 1/2	90-2000	75-2000	415.0	4.50	278- 900 (EA)	800
B-100	6-4 3/4x5 1/2	94-2000	80-2000	496.0	4.50	350-1200 (EA)	875
CHEVROLET							
Thriftmaster	6-3 7/8x3 1/4	140-4200	123-4000	235.5	8.00	210-2000 (BE)	608
Thrift. Special	6-3 7/8x3 1/4	140-4200	120-3800	235.5	8.00	210-2300 (BE)	630
Thriftmaster HD	6-3 7/8x3 1/4	140-4200	123-4000	235.5	8.00	210-2000 (BE)	614
Jobmaster	6-3 7/8x3 1/4	148-4000	125-3800	261.0	7.80	232-2000 (BE)	616
Trademaster	6-3 7/8x3	155-4200	132-3800	265.0	7.50	249-2200 (BE)	592
Taskmaster	6-3 7/8x3	155-4200	132-3800	265.0	7.50	249-2200 (BE)	601
Loadmaster	8-4x3 1/8	195-4000	170-4000	322.0	7.70	310-2200 (BE)	718
CONTINENTAL							
F-4124	4-3x4 5/8	47-3200	.....	124.0	.....	94-1600 (BE)	395
F-4140	4-3 1/8x4 5/8	52-3200	.....	140.0	.....	108-1600 (BE)	395
F-4162	4-3 1/4x4 5/8	58-3200	.....	162.0	.....	122-1600 (BE)	395
F-6186	6-3x4 5/8	77-3500	.....	186.0	6.70	142-1600 (BE)	515
F-6209	6-3 1/8x4 5/8	90-3500	.....	209.0	6.70	160-1600 (BE)	515
F-6226	6-3 1/4x4 5/8	99-3500	.....	226.0	6.70	180-1600 (BE)	515
M-6271	6-3 1/4x4 5/8	97-3000	.....	271.0	6.70	209-1400 (BE)	755
N* 6290	6-3 5/8x4 5/8	108-3000	.....	290.0	6.70	226-1400 (BE)	755
M-6330	6-4x4 5/8	125-3000	.....	330.0	6.70	258-1400 (BE)	755
B-6371	6-4 1/8x4 5/8	123.5-3000	.....	371.0	6.50	284-1400 (BE)	870
T-6371	6-4 1/8x4 5/8	144-3000	.....	371.0	6.40	297-1400 (BE)	1070
B-6427	6-4 1/4x4 5/8	142-3000	.....	427.0	6.50	328-1200 (BE)	875
T-6427	6-4 1/4x4 5/8	180-3200	.....	427.0	6.40	350-1400 (BE)	1075
U-6501	6-4 1/2x5 1/8	178-2600	.....	501.0	6.20	414-1200 (BE)	.....
R-6513	6-4 1/2x5 5/8	192-2800	.....	513.0	6.00	422-1400 (BE)	1525
R-6572	6-4 3/4x5 5/8	220-2800	.....	572.0	6.00	484-1200 (BE)	1525
R-6602	6-4 7/8x5 5/8	232-2800	.....	602.0	6.00	484-1200 (BE)	1525
S-6749	6-5 5/8x5 1/2	250-2800	.....	749.0	.....	574-1400 (BE)	1865
K-6271	6-3 1/4x4 5/8	115-3200	.....	271.0	6.40	216-1400 (BE)	.....
K-6290	6-3 5/8x4 5/8	123-3200	.....	290.0	6.40	232-1400 (BE)	.....
K-6330	6-4x4 5/8	145-3200	.....	330.0	6.40	266-1800 (BE)	.....
S-6820	6-5 1/2x5 1/2	275-2800	.....	820.0	.....	628-1400 (BE)	.....
V-8603	8-4 1/8x4 1/4	242-3200	.....	603.0	7.00	500-1400 (BE)	1786
M-6363	6-4x4 1/4	146-3000	.....	363.0	6.70	304-1600 (BE)	840
K-6363	6-4x4 1/4	162-3200	.....	363.0	6.50	300-1800 (BE)	960
DODGE							
T-334, TL-334, T-336	6-3 1/4x4 5/8	112-3600	102-3600	230.2	7.60	198-1600 (BE)	490
T-361, T-362	6-3 1/4x4 5/8	112-3600	102-3600	230.2	7.60	198-1600 (BE)	510
T-338, TS-342	6-3 1/4x4 5/8	112-3600	102-3600	230.2	7.60	198-1600 (BE)	510
T-137	6-3 1/4x4 5/8	109-3600	94-3600	230.2	7.60	195-1600 (BE)	510
T-164, T-165	6-3 1/4x4 5/8	105-3600	92-3600	230.2	7.60	193-1200 (BE)	510
T-342	6-3 1/4x4 5/8	112-3600	102-3600	230.2	7.60	198-1600 (BE)	510
T-364	6-3 1/4x4 5/8	112-3600	102-3600	230.2	7.60	198-1600 (BE)	510
TX-342, T-344	6-3 7/8x4 1/2	120-3600	110-3600	250.6	7.00	210-1200 (BE)	525
T-356	6-3 7/8x4 1/2	112-3600	101-3200	250.6	7.00	205-1600 (BE)	525
TX-344, T-346	6-3 7/8x4 1/2	125-3600	112-3400	265.4	7.00	225-1200 (BE)	525
TX-356	6-3 7/8x4 1/2	114-3600	104-3200	265.4	7.00	216-1200 (BE)	525
T-358, TX-358	6-3 7/8x4 1/2	114-3600	104-3200	265.4	7.00	216-1200 (BE)	525
TX-346	6-3 7/8x4 1/2	136-3600	127-3600	265.4	7.00	228-1600 (BE)	525
TS-344	6-3 7/8x4 1/2	120-3600	110-3600	250.6	7.00	210-1200 (BE)	525
TS-346	6-3 7/8x4 1/2	125-3600	112-3400	265.4	7.00	225-1200 (BE)	525
TXS-346	6-3 7/8x4 1/2	136-3600	127-3600	265.4	7.00	228-1600 (BE)	525
T-352, T-353							1150
VT-334, VT-336, VT-338, VT-342	8-3 5/8x3 1/4	172-4400	142-4000	269.6	8.00	256-2200 (BE)	.....
VTX-342, VT-344, VTX-344	8-3 5/8x3 1/4	172-4400	142-4000	269.6	7.60	256-2200 (BE)	.....
VT-346, VTX-346	8-3 5/8x3 1/4	175-4400	142-4400	269.6	7.60	256-2400 (BE)	.....
VT-348, VT-350	8-3 1/2x3 5/8	193-4000	174-4000	331.1	7.20	303-2600 (BE)	.....
VTX-350	8-3 1/2x3 5/8	202-4000	187-4000	331.1	7.20	316-2400 (BE)	.....
VTS-342	8-3 5/8x3 1/4	172-4400	142-4000	269.6	8.00	256-2200 (BE)	.....
VTS-344	8-3 5/8x3 1/4	172-4400	142-4000	269.6	7.60	256-2200 (BE)	.....
VTS-346	8-3 5/8x3 1/4	175-4400	142-4400	269.6	7.60	256-2400 (BE)	.....
VTS-348	8-3 1/2x3 5/8	193-4000	187-4000	331.1	7.20	303-2600 (BE)	.....
FAGEOL							
FTC-180	6-4 1/4x4 3/4	180-2800	.....	404.0	7.50	360-1600 (BE)	952
FTC-200	6-4 5/8x5	200-2800	.....	451.0	7.29	400-1600 (BE)	952
FTC-210	6-4 1/2x5	210-2800	.....	477.0	7.09	480-1600 (BE)	952
FAGEOL—Cont.							
^FTC-180	6-4 1/4x4 3/4	180-2800	.....	404.0	9.60	360-1600 (BE)	952
^FTC-200	6-4 5/8x5	200-2800	.....	451.0	9.50	400-1600 (BE)	952
^FTC-210	6-4 1/2x5	210-2800	.....	477.0	9.00	480-1600 (BE)	952
FORD							
EBR	6-3 5/8x3 1/2	133-4000	120-3900	223.0	7.80	202-1850 (BE)	.....
EBS, EBT	6-3 5/8x3 1/2	133-4000	120-3900	223.0	7.80	202-1850 (BE)	.....
ECR	8-3 5/8x3 1/2	158-3800	141-3600	272.0	7.60	247-2400 (BE)	.....
ECW, ECY	8-3 5/8x3 1/2	167-4400	143-4000	272.0	7.80	260-2350 (BE)	.....
ECR (Optional)	8-3 5/8x3 1/2	168-3800	149-3600	272.0	7.60	259-2500 (BE)	.....
ECS	8-3 5/8x3 1/2	175-3800	157-3600	302.0	7.50	279-2300 (BE)	.....
ECS (Optional)	8-3 5/8x3 1/2	186-3800	166-3600	302.0	7.50	286-2400 (BE)	.....
ECT	8-3 1/2x3 1/2	190-3800	172-3600	332.0	7.50	306-2300 (BE)	.....
ECT (Optional)	8-3 1/2x3 1/2	200-3800	181-3600	332.0	7.50	316-2400 (BE)	.....
G. M. C.							
270 (Bus)	6-3 1/2x4	125-3400	105-3200	269.5	7.50	232-1000 (BE)	.....
248	6-3 1/2x3 1/2	130-3600	120-3400	248.5	7.50	214-2200 (BE)	.....
270 (Truck)	6-3 1/2x4	140-3600	127-3400	269.5	7.50	238-1800 (BE)	.....
302	6-4x4	155-3600	138-3400	301.6	7.50	268-1900 (BE)	.....
316	8-3 1/2x3 1/2	180-4400	156-3600	316.7	7.80	276-2400 (BE)	.....
32-	8-3 1/2x3 1/2	175-3800	158-3600	324.0	7.50	305-2000 (BE)	.....
503	6-4 7/8x5 1/2	225-3200	199-2800	502.7	6.85	436-1500 (BE)	.....
HALL-SCOTT							
(H) 504	6-4 5/8x5	180-2500	162-2500	504.0	6.00	445-1800 (BE)	1275†
(m) (H) 190-2-3-5	6-5 1/4x6	220-2200	200-2200	779.0	5.60	625-1300 (BE)	1788†
1091-G-1 (m), 1091-B-1	6-5 3/4x7	332-2200	308-2200	1090.0	6.40	960-1200 (BE)	2150†
935-G-1 (m), 935-B-1	6-5 3/4x6	295-2400	270-2400	935.0	6.40	800-1400 (BE)	2150†
590-GV-3, 590-GV-4	6-5x5	232-2800	205-2800	590.0	6.60	510-1800 (BE)	1130†
^590-BV-1	6-5x5	246-2800	205-2800	590.0	9.00	510-1800 (BE)	1130†
590-GH-1	6-5x5	232-2800	205-2800	590.0	6.60	510-1800 (BE)	1210
^590-BH-1	6-5x5	246-2800	205-2800	590.0	9.00	510-1800 (BE)	1210
6156-G-1	6-5 1/4x6	312-2400	294-2400	935.0	6.40	830-1300 (BE)	2150
6156-B-1	6-5 3/4x6	339-2400	320-2400	935.0	8.10	870-1300 (BE)	2150
6182-G-1	6-5 3/4x7	332-2200	317-2200	1091.0	6.50	960-1250 (BE)	2150
6182-B-1	6-5 3/4x7	356-2200	341-2200	1901.0	8.10	1065-1100 (BE)	2150
HERCULES							
ZXA	4-2 1/2x3	22.5-4000	19-4000	59.0	6.30	36-2200 (BE)	179
ZXB	4-2 5/8x3	25-4000	21-4000	65.0	6.30	40-2200 (BE)	179
IXA	4-3x4	40-3200	34-3200	113.0	6.50	78-1800 (BE)	285
IXB	4-3 1/8x4	46-3200	39-3200	133.0	6.50	92-1800 (BE)	293
IXLB	4-3 1/8x4 1/4	49-3200	42-3200	141.0	6.50	97-1800 (BE)	293
JX4E	4-3 1/2x4 1/4	52-2900	44-2900	164.0	6.70	121-1400 (BE)	470
JX4C	4-3 5/8x4 1/4	60-2900	51-2900	188.0	6.70	139-1400 (BE)	470
QXA	6-3 1/8x4 1/4	64-3200	54.5-3200	190.0	6.50	132-1300 (BE)	440
QXB	6-3 1/8x4 1/4	69-3200	59-3200	205.0	6.50	142-1400 (BE)	440
JX4D	4-4x4 1/4	68-2900	57-2900	214.0	6.70	157-1400 (BE)	470
QXC	6-3 5/8x4 1/4	77.5-3200	66-3200	221.0	6.50	159-1400 (BE)	440
QXD	6-3 7/8x4 1/4	78.4-3200	70-3200	230.0	6.50	167-1500 (BE)	440
QXLD	6-3 7/8x4 1/4	92-3200	77-3200	236.7	6.50	190-1400 (BE)	440
JXE	6-3 1/2x4 1/4	91-3200	77-3200	245.0	6.50	184-1400 (BE)	590
JXB	6-3 5/8x4 1/4	98-3200	83-3200	263.0	6.50	190-1400 (BE)	605
JXC	6-3 3/4x4 1/4	103-3200	87.5-3200	282.0	6.50	207-1400 (BE)	605
JXD	6-4x4 1/4	113-3000	96-3000	320.0	6.50	240-1200 (BE)	605
JXLD	6-4x4 1/4	131-3200	111-3200	339.0	6.50	272-1400 (BE)	630
WXLC	6-4x4 3/4	123-2600	104-2600	358.0	6.50	275-1300 (BE)	811
WXC3	6-4 1/4x4 1/2	131-2600	111-2600	383.0	6.50	296-1400 (BE)	820
WXLC3	6-4 1/4x4 3/4	139-2600	118-2600	404.0	6.50	312-1300 (BE)	825
TDXB	6-4 3/8x5 1/4	161-2600	137-2600	474.0	6.50	366-1300 (BE)	1220
RXB	6-4 1/2x5 1/4	137-2400	116-2400	501.0	6.30	350-1200 (BE)	1220
TDXC	6-4 1/2x5 1/4	170-2600	146-2600	501.0	6.50	388-1300 (BE)	1000
RXC	6-4 5/8x5 1/4	143-2400	121-2400	529.0	6.30	372-1100 (BE)	1010
RXLC	6-4 5/8x5 1/4	146-2400	124-2400	529.0	6.30	408-1100 (BE)	1195
RXLD	6-4 3/4x5 1/4	154-2400	131-2400	558.0	6.30	430-1100 (BE)	1195
RXLDH	6-4 3/4x5 1/4	181-2600	153-2600	558.0	6.50	443-1400 (BE)	1320
HXB	6-5x6	160-2000	135-2000	707.0	6.20	502- 900 (BE)	1810
HXC	6-5 1/4x6	175-2000	149-2000	779.0	6.20	555- 900 (BE)	1810
HXLC	6-5 1/4x6	240-2400	212-2400	779.0	6.40	600-1400 (BE)	2360
HXD	6-5 3/8x6	202-2000	172-2000	855.0	6.20	645- 900 (BE)	1830
HXLD	6-5 3/8x6	252-2400	225-2400	855.0	6.40	696-1400 (BE)	2370
HXE	6-5 3/8x6	227-2000	193-2000	935.0	6.20	750- 900 (BE)	1830
HXLE	6-5 3/8x6	272-2400	245-2400	935.0	6.40	760-1400 (BE)	2380

ABBREVIATIONS

*—For Diesel engines this is continuous sustained horsepower.
^—Liquid petroleum gas engine.
†—Weight complete with ignition and carburetor.
**—High output engine.
††—Air cooled engine.
■—Supercharged engine.
(12)—Industrial power ratings.

TRUCK and BUS ENGINES

and piston displacement for both gasoline and diesel types

ENGINE MAKE AND MODEL	Number of Cylinders Bore and Stroke (In.)	MAX. BRAKE H.P. at R.P.M. With Bare Engine	MAX. BRAKE H.P. at R.P.M. With Standard Accessories*	Piston Displacement (Cu. In.)	Compression Ratio	TORQUE Maximum Torque at R.P.M. (Lb. Ft.)	Engine Weight Without Carburetor or Ignition (Lb.)
LE ROI							
TH540	6-4½x4½	206-3000	.....	540.0	6.70	450-1800 (BE)	1355
TH844	8-5¼x4⅞	298-2600	265-2600	844.0	6.70	730-1600 (BE)	1900†
MACK							
EN291	6-3⅞x4¾	107-2800	100-2800	290.0	6.90	210-1200 (EA)	920
EN331	6-4x4⅝	122-2800	114-2800	330.0	6.90	264-1400 (EA)	920
EN401	6-4⅛x5⅛	150-2800	142-2800	401.0	7.29	330-1400 (BE)	1070
EN464A	6-4⅛x5	185-2800	167-2800	464.0	6.71	380-1400 (BE)	1522
EN707B	6-5x6	196-2000	179-2000	707.0	6.42	560-1100 (EA)	1902
REO							
OA-331	6-4⅛x4½	140-3200	128-3200	331.0	6.40	280-1200 (EA)	872
OA-292	6-3⅞x4½	124-3300	110-3300	292.0	6.55	218-1400 (EA)	930
OA-255	6-3⅝x4½	107-3400	93-3400	255.0	6.70	183-1200 (EA)	920
^OA-331-LPG	6-4⅛x4½	142-3200	130-3200	331.0	8.20	258-1800 (BE)	914
OH-160	6-4⅛x4½	160-3200	148.5-3200	331.0	6.73	290-1400 (BE)	963†u
^OA-255-LPG	6-3⅝x4½	100-3400	86-3400	255.0	7.15	182-1600 (BE)	872†u
^OH-160-LPG	6-4⅛x4½	160-3300	146-3300	331.0	8.20	260-1200 (BE)	995
OV-195	8-3⅞x4½	195-3200	180-3200	390.0	7.30	345-2200 (BE)	1211
OV-220	8-4⅛x4½	220-3200	203-3200	440.0	7.30	405-2000 (BE)	1211
^OV-220-LPG	8-4⅛x4½	220-3200	203-3200	440.0	8.50	405-2000 (BE)	1262†
STUDEBAKER							
1E	6-3x4⅜	92-3800	83-3800	185.6	7.50	152-1800 (BE)	468
2E	8-3⅛x2⅞	140-4500	111-3800	224.3	7.50	202-2800 (BE)	705†
3E	8-3⅛x3¼	156-4500	134-4000	259.2	7.50	236-2600 (BE)	710†
STUDEBAKER—Cont.							
5E	8-3⅛x3¼	175-4500	146-4000	259.2	7.50	250-3000 (BE)	710†
WAUKESHA							
(12) FC	4-3½x4	35-2400	30-2200	133.0	5.58	96-1200 (BE)	290
180GL	4-3½x3¾	45-2400	37-2000	144.0	6.75	118-1600 (BE)	450
(12) XAH	4-3½x4½	47-2000	44-2000	186.0	5.50	131-1400 (BE)	385
185GL	6-3½x3¾	67-2400	59-2200	216.0	6.75	176-1400 (BE)	740
190GL	6-3¾x4	77-2200	68-2000	265.0	6.50	223-1200 (BE)	690
195GL	6-4x4	85-2400	77-2200	302.0	6.20	240-1200 (BE)	775
195GKA	6-4½x4	122-3000	88-2200	320.0	6.20	243-1600 (BE)	775
MZA	6-4½x4¾	128-2800	82-2000	404.0	5.60	289-1000 (BE)	920
**135GKB	6-4½x5	147-2800	121-2200	426.0	6.25	337-1200 (BE)	1325
**135GZB	6-4¾x5	153-2800	130-2200	451.0	6.30	354-1200 (BE)	1495
140GK	6-4½x5½	160-2250	117-1800	525.0	6.40	401-1000 (BE)	1390
**140GKB	6-4½x5½	177-2600	135-2000	525.0	6.40	425-1000 (BE)	1495
140GZ	6-4¾x5½	168-2250	135-1800	554.0	6.40	448-1100 (BE)	1390
**140GZB	6-4¾x5½	188-2600	143-2000	554.0	6.40	448-1100 (BE)	1390
145GK	6-5¼x6	216-2000	167-1800	779.0	6.20	595-1000 (BE)	1810
**145GKB	6-5¼x6	240-2400	178-2000	779.0	6.20	595-1000 (BE)	1810
**145GZB	6-5¾x6	250-2400	185-2000	817.0	6.00	630-1100 (BE)	1810
(12) WAK	6-6¼x6½	222-1600	206-1500	1197.0	5.20	892- 900 (BE)	3050
**WAKB	6-6¼x6½	280-1800	255-1800	1197.0	5.20	1000-1000 (BE)	3050
WILLYS							
F4-134	4-3⅛x4⅜	72-4000	.....	134.2	6.90	114-2000 (BE)	390
L6-226	6-3⅛x4⅜	115-3850	.....	226.2	6.86	190-1800 (BE)	568

DIESELS

ENGINE MAKE AND MODEL	Number of Cylinders Bore and Stroke (In.)	MAX. BRAKE H.P. at R.P.M. With Bare Engine	MAX. BRAKE H.P. at R.P.M. With Standard Accessories*	Piston Displacement (Cu. In.)	Compression Ratio	TORQUE Maximum Torque at R.P.M. (Lb. Ft.)	Engine Weight Without Carburetor or Ignition (Lb.)
ALLIS-CHALMERS							
6-DT-317	6-3⅝x5½	90-2300	56-1800	317.0	14.50	224-1500	1133
6-DT-468	6-4½x5½	113-2000	80-1800	468.0	14.20	268.5-1100	1435
6-DA-779	6-5¼x6	185-2100	148-1800	779.0	14.20	540-1400	.....
6-DA-844	6-5¼x6½	215-2100	194-2000	844.0	14.20	640-1500	2850
6-DAS-844	6-5¼x6½	280-2100	180-1600	844.0	12.80	780-1500	.....
8-DA-1125	8-5¼x6½	288-2100	187-1600	1125.0	14.20	830-1300	.....
8-DAS-1125	8-5¼x6½	350-2100	220-1600	1125.0	12.80	1040-1400	.....
6-DA-273	6-3⅝x4½	85-2800	53-1800	273.0	15.70	204-1400	830
6-DAT-779	6-5¼x6	275-2100	.....	779.0	12.50	.....	.....
CONTINENTAL							
TD-6427	6-4⅜x4⅞	116-2400	.....	427.0	14.50	307-1300	1270
RD-6572	6-4⅝x5⅜	172-2400	.....	572.0	14.50	423-1300	1785
SD-6802	6-5⅛x5½	225-2200	.....	802.0	14.70	620-1300	.....
VD-8603	8-4⅝x4½	182-2800	.....	603.0	15.80	.....	1696
CUMMINS							
J-6	6-4½x6	95-1800	71-1800	401.0	15.70	288-1450	1450
JF-6	6-4½x5	105-2200	76-1800	401.0	15.70	288-1450	1450
JN-6	6-4½x5	125-2500	87-2200	401.0	15.80	290-1800	1450
JS-600	6-4½x5	150-2500	105-2200	401.0	15.50	352-1650	1545
JNS-6	6-4½x5	165-2500	115-2200	401.0	15.50	394-1650	1545
JT-6	6-4½x5	175-2500	122-2200	401.0	15.50	407-1700	1615
HRC-400	4-5½x6	110-1800	83-1800	495.0	15.50	358-1100	1650
NHC-400	4-5½x6	120-1800	90-1800	495.0	15.50	390-1100	1750
H-600	6-4½x6	150-1800	113-1800	672.0	17.00	480-1200	2400
HR-600	6-5½x6	185-1800	124-1800	743.0	15.50	518-1300	2400
HRF-600	6-5½x6	180-2000	129-1800	743.0	15.50	550-1350	2450
HS-600	6-4½x6	200-1800	150-1800	672.0	14.00	640-1250	2700
HRS-600	6-5½x6	225-1800	169-1800	743.0	13.50	706-1300	2700
NH-600	6-5½x6	200-2100	137-1800	743.0	15.50	550-1600	2545
NHH-600	6-5½x6	200-2100	137-1800	743.0	15.50	550-1600	2285
NT-6	6-5½x6	250-2100	172-1800	743.0	15.50	695-1500	2546
NHHT-6	6-5½x6	250-2100	172-1800	743.0	15.50	695-1500	2385
NTO-6	6-5½x6	262-2100	.....	743.0	15.50	695-1500	2546
NHS-600	6-5½x6	275-2100	185-1800	743.0	13.50	740-1550	2775
NHRS-600	6-5½x6	300-2100	204-1800	743.0	12.00	818-1550	2775
NRT-6	6-5½x6	335-2100	225-1800	743.0	14.20	895-1500	2560
NHHRT-6	6-5½x6	335-2100	225-1800	743.0	14.20	895-1500	2385
DEUTZ ††							
F6L-514	6-4⅜x5½	.....	.....	487.0	17.80	325-1400	1430
F8L-614	8-4⅜x5½	.....	.....	649.0	17.80	434-1400	1874
F12L-614	12-4⅜x5½	.....	230-2300	974.0	17.80	664-1200	2750
FAGEOL-LEYLAND							
600	6-4⅛x5½	160-2225	.....	597.0	15.75	455-1200	1625
680	6-5x5¾	180-2225	.....	677.0	15.75	504-1100	1625
GENERAL MOTORS							
4-51	4-4¼x4¼	.....	.....	217.0	18.00	.....	1035
GENERAL MOTORS—Cont.							
4-71	4-4¼x5	.....	.....	284.0	17.00	.....	1570
6-71	6-4¼x5	.....	.....	426.0	17.00	.....	1975
HERCULES							
DIX4B	4-3½x4	46-3000	33-2200	133.0	15.50	96-1500	600
DIX4D	4-3½x4	57-3000	46-3000	165.0	15.50	120-1500	600
DOOB	4-3¾x4½	62-2600	41-1800	199.0	15.50	142-1400	750
DOOC	4-4x4½	70-2600	47-1800	226.0	15.50	162-1400	750
DIX6D	6-3½x4	93-3000	67-2200	249.0	15.50	186-1800	800
DOOD	4-4¼x4½	79-2600	53-1800	255.0	16.50	182-1400	750
DJXB	6-3½x4½	77-2600	51-1800	260.0	15.50	179-1300	950
DIX6-272	6-3½x4	102.5-3000	72-2200	272.0	15.50	204-1800	800
DJXC	6-3¾x4½	83-2600	58-1800	298.0	15.50	208-1300	950
DJXH	6-3¾x4½	99-2600	67-1800	298.0	15.50	234-1400	950
DJXHF	6-3¾x4½	99-2600	67-1800	298.0	15.50	234-1400	950
DWXC	6-4x4¾	120-2800	80-1800	358.0	15.50	284-1600	1350
DIXV8	8-4x4	160-3000	108-2200	402.0	15.00	310-1800	1050
DWXD	6-4¼x4¾	135-2600	91-1800	404.0	15.50	320-1600	1350
DWXLD	6-4¼x5	142-2600	95-1800	426.0	15.50	333-1600	1350
DWXLDF	6-4¼x5	142-2600	90-1800	426.0	15.50	319-1400	1325
DRXB	6-4⅜x5½	134-2200	90-1600	474.0	15.00	358-1200	1600
DRX-501	6-4½x5½	139-2200	96-1600	501.0	15.00	388-1500	1600
DRXC	6-4½x5½	147-2200	100-1600	529.0	15.00	395-1200	1600
DFXB	6-5x6	190-2100	136-1600	707.0	14.80	530-1350	2500
DFXC	6-5½x6	204-2100	149-1600	779.0	14.80	585-1350	2500
DFXD	6-5½x6	217-2100	162-1600	855.0	14.80	645-1200	2500
DFXE	6-5½x6	228-2100	170-1600	895.0	14.80	680-1200	2500
DFXETS	6-5½x8	318-2000	218-1600	895.0	14.80	846-1600	3000
DFXH	6-5¾x6	260-2100	187-1600	935.0	14.80	750-1200	2600
DFXHF	6-5¾x6	260-2100	187-1600	935.0	14.80	750-1200	2600
DNXV8D	8-6¼x6	388-1800	280-1600	1468.0	14.80	1100-1200	4200
MACK							
END673	6-4⅞x6	170-2100	.....	672.0	16.50	480-1200	1927
ENDT673	6-4⅞x6	206-2100	.....	672.0	16.50	560-1400	1930
P & H							
287C-18A	2-4½x5½	95-1800	66-1800	174.0	16.00	270-1200	975
387C-18A	3-4½x5½	144-1800	103-1800	261.0	16.00	425-1300	1190
487C-18A	4-4½x5½	200-1800	144-1800	348.0	16.00	600-1350	1500
687-18A	6-4½x5½	280-1800	205-1800	522.0	16.00	825-1300	1820
WAUKESHA							
180-DLC	4-3½x3¾	45-2400	26-2000	144.0	17.00	102-1800	475
185-DLC	4-3½x3¾	60-2400	44-2000	216.0	17.00	152-1800	800
190-DLCA	6-3¾x4	84-2800	46-2000	265.0	17.00	191-1400	868
195-DLCA	6-4x4	98-2800	62-2000	302.0	17.00	221-1800	905
135-DKB	6-4¼x5	147-2800	85-1800	426.0	17.50	328-1600	1386
*135-DKBS	6-4¼x5	185-2800	.....	426.0	17.50	400-1800	1486
148-DKB	6-5¼x6	200-2150	147-1800	779.0	17.50	584-1000	2320
*148-DKBS	6-5¼x6	280-2100	.....	779.0	17.50	706-1800	2445
WAKDB	6-6¼x6½	224-1600	167-1600	1197.0	16.50	840-1000	3800
*WAKDBS	6-6¼x6½	352-1800	224-1600	1197.0	16.50	1062-1600	3925

(m)—A model in this series is also available for use with liquid petroleum gases. The engine will have a higher compression ratio, brake horsepower and torque.

(u)—Complete with S.A.E. housing.

BE—Bare engine.
EA—Engine with standard accessories.
H—Horizontal engine.

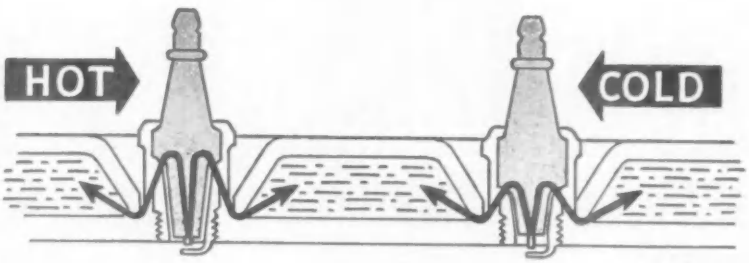
HD—Heavy duty.

Spark Plug Heat Range Chart

Proper spark plug heat range is very important to engine operating efficiency. Too hot plugs may become coated with oxide to the point where performance is affected. Points wear rapidly, and early failure results. Too cold type plugs carbon up and become deposited with soot. Result is premature fouling and engine missing. The following charts show manufacturers' heat range numbers. However, only comparative heat range relationship is provided. Spark plugs of different manufacturers vary as to grouped ranges so that direct comparison is not always possible.

Heat range of a spark plug is mainly determined by the length of the insulators. Longer insulators run hotter since the heat must travel farther to reach the coolant, as shown in the schematic drawing below. Shorter insulators run cooler because the heat travels a shorter distance.

Heat range is identified by the number on the porcelain top of the spark plug.



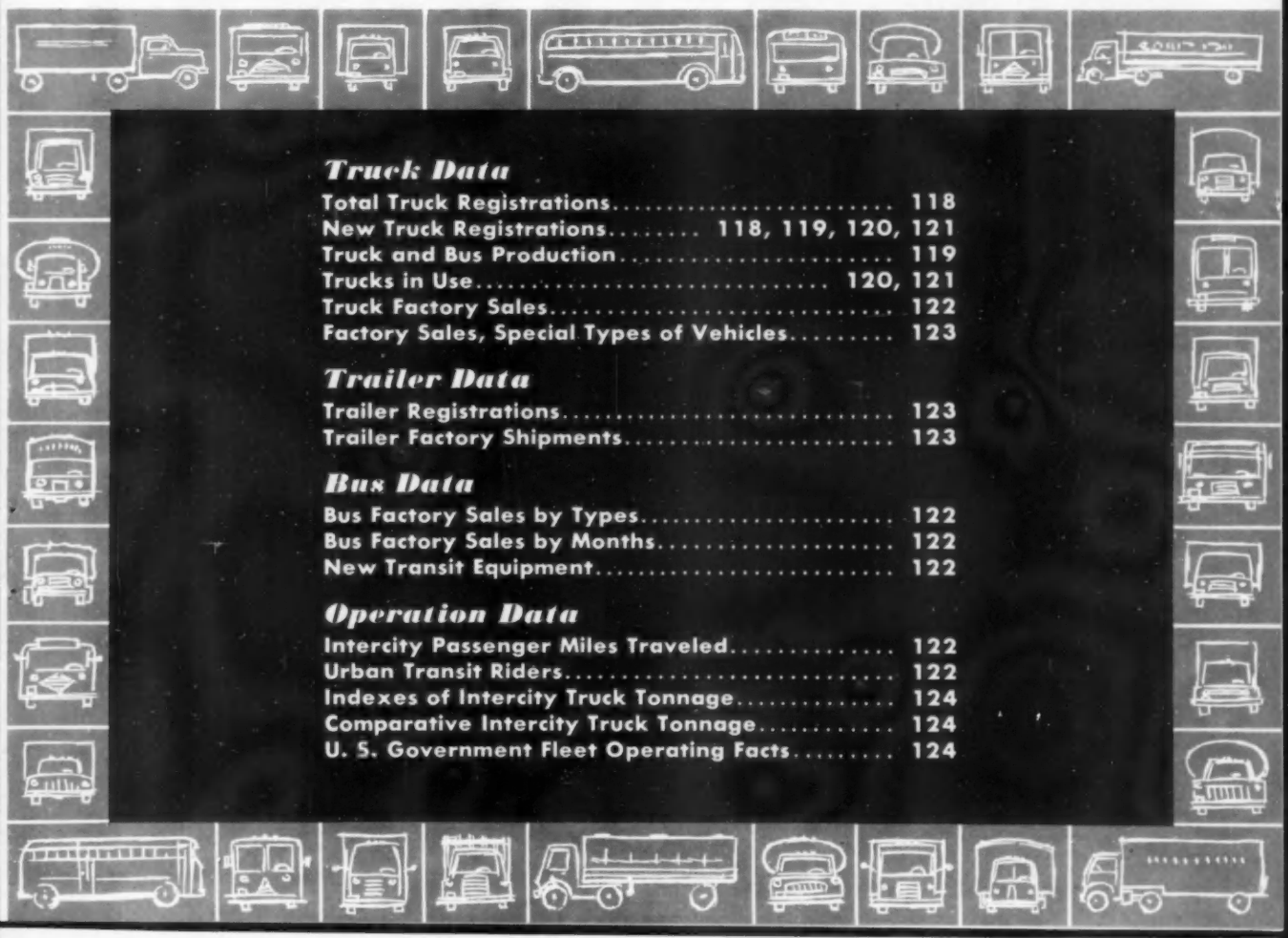
Thread Size	Hex Size	Heat Range	AC		Champion	Auto-Lite		Blue Crown XCiter	Hastings
			Automotive	Commercial		Standard and Transport	Resistor		
10 mm ¼" reach	⅝"	HOT	M-8		Y-8	P-6	PR-6	T8	10-170
			106, M-8		Y-6	P-6	PR-6	T6	
				104-Com				T6	10-230
		COLD	104, M-8	104-Com	Y-4A	P-4	PR-4		10-300
				103-Com, 104-Com					
14 mm ½" reach	¹³⁄₁₆"	HOT	48, 48X	47-Com	J-14	A-11, AT-10	AR-10	M13	14-105
								M11	
			48, 48X	47-Com	J-12	A-11, AT-10	AR-10	M9	14-125
			46, R46	46-Com	J-11	A-9, AT-8	AR-8	M7	14-140
			45	45-Com	J-8	A-7, AT-8	AR-8, 4S140	M5	14-165
			44	44-Com	J-7	A-5, AT-6	AR-5, 4S165, AR-51	FM4	14-190
			43	43-Com	J-6			FM3	14-225
		COLD	43	42-5-Com, 43-Com	J-5	AT-4	AR-4	FM2	
			42	42-Com	J-2	A-3	4S250		14-300
14 mm ½" reach	¹³⁄₁₆"	HOT	47L		H-12	AL-11		FM8L	
			45L	45L-Com	H-11	AL-9	ARL-8	FM8L	
			45L	45L-Com	H-10	AL-7, ATL-8	ARL-8	FM8L	
			43L	43L-Com	H-9	AL-5, ATL-4	ARL-5	FM6L	
		COLD	43L	43L-Com	H-8	AL-5	ARL-5	FM6L	
18 mm ½" reach	⅞"	HOT							
			88	88L-Com	10-Com 64†	B-11*, BT-10	BR-10		18-105
					9*, D-21	B-11*, BT-10	BR-10	87S	
				86-Com, 86S-Com	8-Com	B-9*, BT-8	BR-8	86S	18-135
			86, 85T, 85TR	85S-Com	7, 870	B-9*, BT-8, BF-7*	BR-8, BRF-8*	E9*	18-150T*
						B-9*, BT-8	BR-8	85S	
				83-Com, 83S-Com, 84T-Com	6-Com, 860	B-7*, BT-6, BTF-6*	BR-8	84S	18-155
			82	82-Com, 82S-Com	5-Com	B-5*, BT-4	BR-4	83S	18-220,18-320
		COLD		81S-Com	4-Com	B-3*, BT-3		E4*, 825	18-170T*
⅞-18	¹³⁄₁₆"	HOT							⅞-105
				78L-Com	3-Com†, 2-Com L			78	
			78		20	T-11*, TT-10		76	⅞-135
			78S		C-4				
			76			T-9*, TT-8			
			74	75-Com	1-Com	T-7*, TT-8		75	
				73-Com	O-Com	T-5*, TT-4			⅞-155
		COLD						74	
								73	⅞-220
									⅞-320
	½" Pipe		26		30	F-11		TF	
			26		A-25	F-11		TF	

* To be discontinued after present stocks are depleted. † Long reach types. * Tapered seat.

SECTION 2

INDUSTRY STATISTICS

1956 COMMERCIAL CAR JOURNAL'S FLEET OPERATORS' REFERENCE ANNUAL



Truck Data

Total Truck Registrations..... 118
New Truck Registrations..... 118, 119, 120, 121
Truck and Bus Production..... 119
Trucks in Use..... 120, 121
Truck Factory Sales..... 122
Factory Sales, Special Types of Vehicles..... 123

Trailer Data

Trailer Registrations..... 123
Trailer Factory Shipments..... 123

Bus Data

Bus Factory Sales by Types..... 122
Bus Factory Sales by Months..... 122
New Transit Equipment..... 122

Operation Data

Intercity Passenger Miles Traveled..... 122
Urban Transit Riders..... 122
Indexes of Intercity Truck Tonnage..... 124
Comparative Intercity Truck Tonnage..... 124
U. S. Government Fleet Operating Facts..... 124

TOTAL U.S. TRUCK REGISTRATIONS

Now Exceed 10 Million

Year	Units	% Gain
1915	136,000	59
1916	215,000	58
1917	326,000	52
1918	525,000	61
1919	794,372	51
1920	1,006,082	27
1921	1,117,100	11
1922	1,375,725	23
1923	1,612,589	17
1924	2,134,724	32
1925	2,440,654	14
1926	2,764,222	13
1927	2,914,019	5
1928	3,113,999	7
1929	3,379,854	8
1930	3,486,019	3
1931	3,466,571	−0.6
1932	3,229,315	−0.7
1933	3,227,357	−0.6
1934	3,409,335	5.6
1935	3,655,705	7.1
1936	3,981,755	9.1
1937	4,107,244	3.1
1938	4,210,022	2.5
1939	4,419,893	5.0
1940	4,604,722	4.2
1941	4,859,662	5.5
1942	4,644,209	−4.4
1943	4,549,882	−2.0
1944	4,516,157	−0.7
1945	4,908,778	8.8
1946	5,749,643	17.1
1947	6,612,922	15.0
1948	7,356,553	11.2
1949	7,615,431	3.5
1950	8,185,948	7.5
1951	8,696,224	6.2
1952	8,988,560	3.4
1953	9,208,864	2.5
1954	9,744,398	+6.0
1955	10,104,742	+3.6

NEW TRUCK REGISTRATIONS

957,001 New Trucks Added in 1955

Year	Units
1927	327,965
1928	341,123
1929	527,057
1930	410,699
1931	313,884
1932	180,413
1933	245,888
1934	402,886
1935	510,683
1936	611,844
1937	613,249
1938	383,349
1939	488,748
1940	559,150
1941	640,697
1942	77,422
1943	62,469
1944	121,269
1945	350,932
1946	625,249
1947	879,132
1948	1,035,174
1949	961,961
1950	1,142,307
1951	1,003,850
1952	812,099
1953	930,312
1954	829,101
1955	957,001

Source: 1927 through March, 1942, and 1946 and later years compiled by R. L. Polk & Co. April, 1942 through July, 1945 data are W.P.B. and O.D.T. and represent certificates of transfer to civilian users.

TOTAL TRUCK REGISTRATIONS BY STATES

Texas Stays on Top, California Next, Pennsylvania Third

	1955	1954	1953	1952	1951	1950
Alabama	185,087	166,453	170,753	164,490	152,058	151,700
Arizona	85,000	82,871	76,657	72,058	64,584	58,737
Arkansas	177,627	171,393	167,627	160,163	153,149	140,388
California	747,180	672,943	640,679	700,129†	643,928	473,897
Colorado	168,000	152,250	145,352	138,333	123,325	131,299
Connecticut	104,058	103,278	94,112	93,754	89,172	87,174
Delaware	29,211	25,962	23,919	21,541	20,993	20,909
District of Columbia	19,387	18,005	19,478	20,073	18,602	18,372
Florida	231,807	213,147	205,668	194,223	187,219	175,240
Georgia	236,753	228,415	215,341	213,746	203,825	192,845
Idaho	93,000	84,827	70,161	69,313	75,484	71,405
Illinois	378,240	389,606	363,963	379,604	378,868	321,738
Indiana	300,000	283,505	270,162	253,362	247,965	244,258
Iowa	211,768	205,075	200,145	192,904	190,107	181,748
Kansas	251,188	241,657	231,590	224,348	215,097	203,723
Kentucky	209,000	195,176	188,697	181,705	171,445	167,342
Louisiana	191,240	186,452	178,469	166,205	161,426	151,749
Maine	74,396	71,878	71,775	64,437	63,353	64,195
Maryland	127,947	142,786	103,792	111,727	106,873	95,888
Massachusetts	174,166	174,378	168,595	169,766	169,543	165,850
Michigan	372,646	362,218	340,618	315,738	311,948	294,825
Minnesota	229,691	221,333	215,430	205,601	202,536	188,990
Mississippi	173,043	185,723	171,792	163,332	154,323	139,442
Missouri	302,000	281,138	272,746	274,433	270,150	261,607
Montana	100,524	93,037	92,438	87,117	84,252	78,210
Nebraska	145,516	145,806	143,499	142,901	138,431	123,933
Nevada	26,488	25,209	23,486	20,894	18,753	16,023
New Hampshire	37,000	42,086	34,009	33,002	33,511	39,347
New Jersey	248,063	224,269	219,139	215,188	213,853	208,796
New Mexico	82,500	76,425	78,700	68,343	59,349	60,123
New York	660,000	645,841	476,764	474,988	456,661	471,672
North Carolina	266,270	247,403	241,488	227,768	209,465	201,881
North Dakota	96,092	92,482	90,165	88,071	86,480	81,967
Ohio	395,730	379,934	373,179	360,000	352,441	327,359
Oklahoma	250,344	240,112	231,118	219,754	211,365	201,160
Oregon	72,400	84,520	89,660	86,682	83,841	130,979
Pennsylvania	530,000	533,680	536,530	507,881	502,255	508,927
Rhode Island	38,000	38,439	34,210	32,493	32,056	30,828
South Carolina	123,679	129,326	127,534	121,016	116,983	109,367
South Dakota	85,000	81,519	79,766	77,404	75,090	70,888
Tennessee	214,806	210,905	207,601	207,207	182,753	163,948
Texas	771,200	720,603	686,795	661,925	659,999	613,485
Utah	60,653	57,380	52,676	50,287	48,807	46,117
Vermont	15,300	14,967	15,040	15,208	14,941	14,911
Virginia	208,844	198,046	191,520	184,779	178,437	165,429
Washington	205,007	184,771	178,567	169,052	163,772	155,708
West Virginia	123,000	113,463	118,689	112,754	110,160	101,381
Wisconsin	225,072	253,773	231,638	226,175	228,277	221,368
Wyoming	50,829	49,127	47,132	44,685	41,319	38,641
Total	10,104,742	9,744,398	9,208,864	8,988,560	8,696,224	8,185,948

†—Includes light commercial vehicles registered as passenger cars.

NEW TRUCK REGISTRATIONS BY MAKES, BY YEARS

It's the Best Year Since 1951

	1955	1954	1953	1952	1951	1950	1949
Autocar	‡	1,041	1,713	1,595	2,112	2,072	1,655
Brockway	1,144	1,340	2,080	1,752	2,182	2,384	1,626
Chevrolet	329,791	293,079	327,960	272,249	350,344	414,496	345,519
Crosley			†	†	†	422	871
Diamond T	3,697	2,701	3,398	3,420	4,508	5,675	5,172
Divco	3,293	2,505	2,569	2,752	3,752	4,309	3,577
Dodge	66,208	60,658	82,345	102,129	106,600	99,716	116,956
Federal	56	248	986	841	1,008	1,489	1,225
Ford	295,900	267,799	266,027	179,523	250,802	315,912	202,179
F. W. D.	315	393	359	543	501	323	337
G. M. C.	84,877	66,644	82,296	79,612	100,285	97,200	80,407
International	100,441	94,222	95,404	92,788	95,184	97,818	91,164
Kenworth	1,182	897	747	705	668	673	396
Mack	10,932	6,098	6,890	7,138	9,794	9,908	6,862
Peterbilt	424	344	332	236	†	†	†
Pontiac		†	468	541	908	1,362	775
Reo	3,121	2,283	3,498	3,393	3,427	3,876	4,003
Studebaker	10,817	10,193	22,473	28,985	32,675	45,881	55,099
White	14,372	10,340	12,261	10,858	12,260	12,050	8,318
White—Sterling	†	†	†	250	334	354	229
Willys—Jeep	10,441	7,598	9,247	8,591	9,002	8,841	14,472
Willys—Truck	16,811	9,925	8,465	11,762	15,290	15,799	18,293
All Others	3,174	993	794	2,433	2,214	1,767	2,826
Total	957,001	829,101	930,312	812,099	1,003,850	1,142,307	961,961

†—Included with "All Others". ‡—Included with White. Source: R. L. Polk & Co.

52 YEARS OF TRUCK AND BUS PRODUCTION

28 Million Vehicles, $34 Billion Value

Year	Units	Wholesale Value	Average Wholesale Price
1904	700	$1,272,747	$1,818
1905	750	1,330,000	1,773
1906	800	1,440,000	1,800
1907	1,000	1,780,000	1,780
1908	1,500	2,550,000	1,700
1909	3,297	5,333,683	1,618
1910	6,000	9,660,000	1,610
1911	10,681	21,000,000	1,966
1912	22,000	43,000,000	1,954
1913	33,500	44,000,000	1,672
1914	24,900	44,219,096	1,776
1915	74,000	125,800,000	1,700
1916	92,130	161,000,000	1,747
1917	128,157	220,982,868	1,724
1918	227,250	434,168,992	1,910
1919	224,731	371,422,820	1,653
1920	321,789	423,249,410	1,315
1921	148,052	166,070,810	1,122
1922	269,991	226,049,658	837
1923	409,295	308,537,929	754
1924	416,659	318,580,580	765
1925	530,659	458,400,277	864
1926	516,947	452,123,435	875
1927	464,793	420,130,624	904
1928	583,342	460,108,903	789
1929	881,909	622,533,897	706
1930	575,364	390,752,061	679
1931	432,262	265,444,618	614
1932	228,303	137,624,157	603
1933	329,218	175,380,863	533
1934	576,205	326,781,688	567
1935	697,367	380,997,330	546
1936	782,220	463,719,486	593
1937	891,016	537,314,633	603
1938	488,841	329,917,646	675
1939	700,377	489,786,701	699
1940	754,901	567,820,414	752
1941	1,060,820	1,069,799,855	1,008
1942	818,662	1,427,456,801	1,744
1943	699,689	1,451,794,475	2,076
1944	737,524	1,700,928,939	2,306
1945	655,683	1,181,955,532	1,803
1946	940,866	1,043,247,276	1,109
1947	1,239,443	1,731,713,000	1,397
1948	1,376,274	1,880,475,000	1,366
1949	1,134,185	1,394,035,000	1,229
1950	1,337,193	1,707,748,000	1,277
1951	1,426,828	2,323,859,000	1,629
1952	1,218,165	2,319,789,000	1,904
1953	1,206,266	2,089,060,000	1,732
1954	1,042,174	1,660,019,000	1,593
1955	1,249,011	2,050,000,000	1,641
52 Years	27,983,689	$34,442,165,484	$1,230

Source: Automobile Manufacturers Assn.

TRUCK DEALERS, WHOLESALERS, INDEPENDENT REPAIR SHOPS

(as of January each year)

Year	Wholesalers	Total Truck Dealers	Independent Repair Shops
1946	6,612	27,159	42,702
1947	7,328	29,397	49,485
1948	7,982	25,998†	55,694
1949	8,338	27,574	59,908
1950	8,567	28,307	63,714
1951	8,687	30,297	71,199
1952	8,703	30,009	70,324
1953	8,988	31,149	72,462
1954	9,230	31,055	74,570
1955	9,446	29,189	77,881
1956	9,502	30,079	81,773

† Reduction in truck dealers due to discontinuance of Plymouth truck production.
Source: Trade List Department, Chilton Company.

NEW TRUCK REGISTRATIONS—BY MAKES & GVW

16-19,500 and Over 26,000-lb GVW Classes Increase Their Share of New Truck Total

	Year	5,000 lb. and less	5,001-10,000	10,001-14,000	14,001-16,000	16,001-19,500	19,501-26,000	Over 26,000	Total
BROCKWAY	1955					189	228	727	1,144
	1954					100	128	1,112	1,340
	1953					109	197	1,774	2,080
CHEVROLET	1955	189,808	53,904	12,615	73,464				329,791
	1954	161,382	56,206	12,635	62,856				293,079
	1953	188,739	64,396	15,115	59,708				327,960
DIAMOND T	1955				498	599	823	1,777	3,697
	1954				533	473	715	980	2,701
	1953				535	824	1,166	871	3,396
DIVCO	1955		2,415	883					3,298
	1954		1,899	606					2,505
	1953		2,011	558					2,569
DODGE	1955	22,009	24,055	1,865	9,903	6,833	1,210	333	66,208
	1954	26,081	18,161	1,708	11,406	4,884	974	444	60,658
	1953	37,500	19,865	4,867	12,523	6,353	639	598	82,345
FEDERAL	1955					11	30	15	56
	1954					23	129	96	248
	1953			2	7	251	426	300	986
FORD	1955	157,559	47,811	12,861	52,331	13,423	8,004	3,911	295,900
	1954	141,839	45,298	14,103	46,916	8,941	7,800	2,902	267,799
	1953	148,548	44,213	15,045	42,563	8,424	9,365	869	286,027
F.W.D.	1955				11	23	186	95	315
	1954				15	29	259	90	393
	1953				21	93	195	50	359
G.M.C.	1955	33,425	13,401	3,758	11,122	9,869	8,109	5,393	84,877
	1954	34,626	11,821	2,728	12,479	6,035	4,682	4,273	66,644
	1953	31,679	14,284	3,996	15,033	7,184	5,449	4,671	82,296
INTERNATIONAL	1955	29,466	15,315	3,351	16,825	14,663	8,928	11,893	100,441
	1954	30,007	12,603	2,497	14,131	10,565	7,197	7,222	84,222
	1953	32,258	16,423	2,902	17,053	11,406	8,118	6,244	95,404
KENWORTH	1955							1,182	1,182
	1954							697	697
	1953							747	747
MACK	1955					199	1,987	8,746	10,932
	1954					192	1,270	4,636	6,098
	1953					180	1,900	4,810	6,890
PETERBILT	1955							424	424
	1954							344	344
	1953							332	332
REO	1955				349	605	1,018	1,149	3,121
	1954				424	291	1,093	475	2,283
	1953				988	297	1,985	228	3,498
STUDEBAKER	1955	6,648	1,972	625	1,572				10,817
	1954	5,936	1,946	1,155	1,156				10,193
	1953	12,877	4,442	2,861	2,293				22,473
WHITE	1955					617	1,908	11,847	14,372
	1954					834	4,737	4,769	10,340
	1953					1,692	6,614	3,955	12,261
WILLYS-JEEP	1955	10,441							10,441
	1954	7,598							7,598
	1953	9,247							9,247
WILLYS-TRUCK	1955	8,012	8,799						16,811
	1954	3,099	6,826						9,925
	1953	1,372	7,003						8,465
ALL OTHERS	1955	2,227	1	9	2	5	157	773	947
	1954	520			3	9	107	354	993
	1953	309	3	7	5	7	187	276	794
TOTAL	1955	459,595	167,673	35,967	166,077	46,836	32,588	48,265	957,001
	1954	401,088	151,760	35,432	149,919	32,376	29,091	39,435	829,101
	1953	480,997	172,732	45,353	150,729	36,820	36,243	27,438	930,312
	1952	350,739	156,560	52,949	159,881	33,149	36,316	22,505	812,099
	1951	469,625	192,274	70,378	169,900	36,790	43,561	21,322	1,003,850
	1950	556,571	232,485	84,018	169,869	37,606	40,695	21,083	1,142,307
% OF TOTAL	1955	48.02%	17.52%	3.76%	17.35%	4.89%	3.41%	5.05%	100.00%
	1954	48.38%	18.30%	4.27%	18.08%	3.91%	3.51%	3.55%	100.00%
	1953	49.55%	18.57%	4.87%	16.20%	3.96%	3.90%	2.95%	100.00%
	1952	43.19%	19.28%	6.52%	19.69%	4.08%	4.47%	2.77%	100.00%
	1951	46.80%	19.15%	7.01%	16.92%	3.66%	4.34%	2.12%	100.00%
	1950	48.72%	20.35%	7.36%	14.87%	3.29%	3.56%	1.85%	100.00%

Based on data from R. L. Polk & Co.

1955 NEW TRUCK REGISTRATIONS BY MAKES BY STATES

California Added Most in '55, Texas Is Second

State	Brock-way	Chev-rolet	Dia-mond T	Divco	Dodge	Fed-eral	Ford	FWD	GMC	Inter-na-tional	Ken-worth	Mack	Peter-bilt	Reo	Stude-baker	White	Willys Jeep	Willys Truck	All Others	Total
Alabama	.....	8,625	25	31	1,279	.....	6,789	.....	2,417	1,766	.....	248	.....	34	114	198	89	107	10	21,652
Arizona	.....	3,271	11	30	734	.....	2,422	4	1,044	636	18	41	1	17	159	47	147	284	50	8,916
Arkansas	.....	6,258	30	.....	903	.....	5,677	.....	1,947	1,390	1	50	.....	8	209	77	67	49	3	16,669
California	4	30,200	312	176	7,189	1	28,123	58	8,909	5,779	329	385	296	282	1,111	912	1,314	2,065	931	88,376
Colorado	.....	4,206	29	88	861	.....	3,478	6	1,222	1,168	35	99	11	44	168	122	493	695	34	12,759
Connecticut	23	2,689	102	62	652	.....	2,377	.....	755	1,123	.....	311	.....	60	109	343	140	234	91	9,071
Delaware	6	959	6	9	224	.....	828	.....	354	480	1	265	1	4	14	248	24	21	5	3,449
Dist. of Col.	2	863	13	28	253	.....	735	.....	337	236	.....	13	.....	30	4	39	22	34	7	2,606
Florida	1	9,639	78	156	1,621	.....	8,960	2	2,523	2,183	.....	553	2	131	358	598	489	719	147	28,160
Georgia	.....	10,047	31	13	1,761	.....	9,355	.....	2,343	2,173	1	289	.....	42	278	336	107	93	10	26,879
Idaho	.....	2,060	12	2	528	.....	1,686	3	826	840	20	46	.....	4	157	42	183	428	12	6,849
Illinois	.....	12,999	478	148	2,978	1	12,114	13	2,921	5,877	2	237	.....	131	443	547	367	370	160	39,786
Indiana	.....	10,059	133	91	1,841	.....	8,430	4	2,113	4,060	202	167	1	115	672	668	143	206	71	28,976
Iowa	2	5,474	127	44	1,076	.....	5,485	1	1,000	2,964	25	57	2	23	147	144	70	99	29	16,770
Kansas	.....	6,416	33	37	715	.....	5,530	1	1,409	1,879	1	4	.....	45	182	106	84	166	8	16,616
Kentucky	.....	6,148	34	21	929	1	5,134	3	1,736	1,454	.....	104	.....	33	160	152	190	195	3	16,297
Louisiana	.....	8,300	45	8	1,204	.....	7,855	1	1,772	1,800	.....	82	.....	10	233	170	158	103	10	21,781
Maine	3	1,992	15	28	369	.....	1,676	1	635	705	.....	158	.....	3	111	71	157	244	30	6,198
Maryland	29	3,769	43	52	1,025	1	3,567	2	652	1,269	.....	205	.....	64	118	251	74	121	25	11,267
Massachusetts	44	3,831	100	161	962	1	4,619	4	1,020	1,583	.....	311	.....	115	105	362	182	382	97	13,879
Michigan	1	14,297	202	286	3,359	2	14,624	3	3,734	2,460	.....	233	.....	246	319	347	362	494	65	41,034
Minnesota	.....	5,771	82	62	1,074	3	5,843	14	1,398	2,368	15	103	.....	42	247	102	119	255	28	17,526
Mississippi	.....	7,990	2	3	900	1	6,242	1	1,963	1,816	.....	63	.....	2	196	36	82	85	3	19,385
Missouri	.....	10,045	130	23	1,385	.....	7,982	3	2,389	2,762	7	90	.....	59	191	285	136	137	50	25,674
Montana	.....	2,576	3	10	539	.....	2,208	1	892	1,026	38	63	3	23	176	71	233	601	15	8,478
Nebraska	.....	3,622	142	33	727	1	3,584	6	955	1,845	86	43	21	24	114	143	103	203	55	11,707
Nevada	.....	733	1	.....	235	.....	687	.....	316	275	1	6	1	2	129	3	79	160	6	2,634
New Hampshire	8	969	8	16	247	.....	883	1	281	291	.....	134	.....	28	51	43	108	196	28	3,282
New Jersey	195	6,754	160	276	2,054	1	6,738	5	2,309	2,188	.....	598	.....	58	181	696	156	322	135	22,826
New Mexico	.....	3,400	17	.....	536	.....	2,325	2	949	668	24	114	5	6	102	47	165	232	5	8,597
New York	547	13,556	312	366	5,180	28	13,019	37	4,320	7,153	.....	1,466	.....	557	419	1,391	747	1,196	426	50,720
North Carolina	.....	10,050	36	26	1,465	1	8,070	3	2,176	1,789	.....	499	.....	31	341	368	175	156	25	25,181
North Dakota	.....	1,521	2	4	345	.....	1,432	.....	472	1,040	.....	1	.....	.....	58	6	42	96	2	5,021
Ohio	6	13,411	213	424	3,082	3	13,261	12	3,219	5,478	1	553	.....	184	391	966	488	530	93	42,315
Oklahoma	.....	7,898	22	20	990	.....	6,566	22	1,795	2,208	5	81	.....	30	197	150	98	115	8	20,205
Oregon	.....	4,674	83	25	1,000	.....	4,232	1	1,733	1,600	141	178	33	59	299	393	321	977	111	15,859
Pennsylvania	254	13,436	210	221	3,955	3	12,860	11	3,662	6,418	.....	1,253	.....	232	535	1,104	92	1,103	103	45,452
Rhode Island	4	1,108	45	15	200	.....	909	.....	175	399	.....	96	.....	21	30	73	19	43	18	3,155
South Carolina	.....	4,237	7	.....	715	.....	3,256	1	831	696	1	93	.....	1	86	107	40	34	8	10,113
South Dakota	.....	1,410	24	4	318	.....	1,576	.....	431	1,001	2	5	1	4	60	17	116	162	.....	5,131
Tennessee	.....	6,734	32	12	1,179	2	6,089	1	1,803	1,863	.....	271	.....	36	174	319	108	105	8	18,736
Texas	.....	33,864	142	31	3,797	2	26,354	2	5,573	7,159	86	494	1	53	730	1,249	639	527	53	80,756
Utah	.....	1,612	13	1	581	.....	1,439	.....	649	561	39	45	16	16	74	67	129	284	15	5,541
Vermont	6	820	9	7	207	2	739	.....	317	403	.....	14	.....	10	33	6	187	259	11	3,030
Virginia	9	7,227	24	54	1,439	1	6,402	2	1,660	1,724	.....	426	.....	102	257	340	235	331	39	20,272
Washington	.....	4,359	58	32	1,371	1	4,397	4	2,006	1,811	84	149	23	51	203	254	302	592	73	15,770
West Virginia	.....	3,192	17	10	896	.....	2,859	18	996	840	.....	129	.....	17	155	135	311	355	6	9,936
Wisconsin	.....	5,235	38	152	1,046	.....	5,306	54	1,392	2,809	2	93	1	32	154	191	180	228	56	16,968
Wyoming	.....	1,485	6	.....	282	.....	1,168	8	546	515	14	14	6	5	63	30	169	428	1	4,740
Total	1,144	329,791	3,697	3,298	66,208	58	295,900	315	84,877	100,441	1,182	10,932	424	3,121	10,817	14,372	10,441	16,811	3,174	987,001

Based on Data from R. L. Polk & Co.

TRUCKS IN USE BY MAKES AND BY MODEL YEAR

Seven Out of Nine Are Less Than 10 Years Old

Model Year	Auto-car	Brock-way	Chev-rolet	Dia-mond T	Divco	Dodge, Ply-mouth	Fed-eral	Ford	G.M.C.	Inter-national	Mack	Pon-tiac	Reo	Stude-baker	White, Sterling	Willys	All Others	Total
1955	(1)	682	164,329	2,128	1,704	37,578	48	165,966	38,268	57,652	5,038	.....	1,480	7,277	6,352	7,691	5,648	501,841
1954	1,127	1,657	252,165	2,572	2,600	55,021	300	205,699	51,551	78,733	6,213	652	2,101	5,588	10,180	7,807	5,953	689,919
1953	1,357	1,889	281,933	3,089	2,709	83,353	597	240,680	66,068	79,125	5,995	1,214	3,080	25,358	10,558	13,989	5,987	846,981
1952	1,365	1,588	251,395	3,099	2,843	96,042	634	187,565	72,720	93,854	6,521	871	2,820	27,515	9,947	11,156	6,341	776,276
1951	1,776	2,088	350,065	4,039	4,107	87,292	855	242,986	84,433	91,435	8,737	1,482	2,807	32,431	11,413	20,635	7,206	953,787
1950	1,543	2,035	370,459	4,345	4,483	103,289	880	289,806	97,250	80,337	7,876	1,653	2,556	35,590	10,897	17,283	6,536	1,036,818
1949	1,202	1,260	306,555	3,898	3,803	101,430	667	181,923	64,183	87,946	5,274	1,175	2,672	68,532	6,220	19,793	5,938	862,071
1948	2,015	2,158	265,085	7,613	5,650	96,769	2,058	195,427	62,940	101,772	6,889	.....	7,349	21,296	8,731	38,552	7,636	831,940
1947	3,142	2,786	167,826	6,808	5,492	92,885	2,767	135,885	35,395	91,350	8,914	.....	5,681	30,312	9,536	17,129	8,766	624,674
1946	3,176	2,283	199,791	2,967	3,944	81,115	1,780	125,500	17,476	62,090	2,934	.....	4,578	18,253	6,407	13,101	6,463	551,858
1945	1,394	1,153	21,198	1,637	1,506	12,947	722	27,690	6,851	18,238	2,993	.....	1,403	1,765	3,855	1,360	2,307	107,019
1944	660	542	8,630	684	217	3,990	331	9,795	3,044	8,824	1,463	.....	463	894	1,669	539	1,070	42,815
1943	127	41	1,661	138	112	1,310	198	4,801	1,524	2,379	252	.....	107	309	554	816	492	14,821
1942	566	125	52,768	696	560	20,189	331	37,261	11,921	15,562	1,136	.....	713	1,174	1,578	2,154	1,581	148,315
1941	1,097	791	105,021	1,889	1,945	40,889	267	78,674	19,096	40,290	3,755	.....	902	2,905	2,913	1,121	2,846	304,021
1940	567	415	74,098	1,519	1,164	25,809	232	53,983	12,374	24,469	2,332	.....	109	627	1,209	1,028	2,224	202,159
1939	490	360	50,424	1,088	927	20,902	159	36,585	8,043	16,982	1,726	.....	137	787	758	344	1,542	141,254
1938	271	209	32,198	797	543	10,403	114	22,669	3,981	13,656	1,028	.....	371	434	604	409	1,238	88,925
1937	321	204	45,977	1,097	85	16,756	153	35,008	7,949	12,125	860	.....	396	951	831	355	1,964	125,032
Earlier	583	402	64,043	2,066	214	25,316	413	132,117	4,727	16,609	2,616	.....	1,311	768	1,842	454	7,273	260,754
Unid.*	386	163	14,545	329	148	5,056	114	11,961	3,571	4,878	497	1,650	307	1,254	654	848	4,806	51,164
Total	23,165	22,831	3,080,166	52,298	44,556	1,018,340	13,640	2,421,981	693,385	998,308	83,049	8,697	40,943	294,020	108,708	178,562	93,817	9,162,444

Unid.*—Unidentified as to model year. (1)—Included with White, Sterling. Based on Data from The Reuben H. Donnelley Corp.

JANUARY, 1956, NEW TRUCK REGISTRATIONS BY MAKES, BY STATES

Almost 4000 Ahead of January, 1955

STATE AND MONTH		Brock-way	Chev-rolet	Dia-mond T	Dodge	Ford	G.M.C.	Interna-tional	Mack	Reo	Stude-baker	White	Willys Jeep	Willys Truck	All Others	Total
Alabama	Jan.		631	2	60	402	188	88	11	1	10	20	2	2	3	1,420
Arizona	Jan.		58		14	27	19	8			2	2	2	2	4	138
Arkansas	Jan.		861	2	88	712	280	266	11		27	4	10	7		2,267
California	Jan.		3,152	19	502	2,010	704	477	51	27	119	61	92	147	210	7,571
Colorado	Jan.		341	3	57	266	100	101	5	5	14	7	19	31	11	960
Connecticut	Jan.	2	184	14	49	159	71	104	42	7	12	23	18	12	21	718
Delaware	Jan.		79	4	19	51	22	75	5		4	3		3	1	266
District of Columbia	Jan.		43		8	81	20	19	4			3		2	2	182
Florida	Jan.		820	5	110	744	231	212	48	10	29	48	1	36	24	2,318
Georgia	Jan.		299	4	48	300	126	91	17	3	15	23	3	2		931
Idaho	Jan.		95		20	93	57	43	2		9	1	9	17	2	348
Illinois	Jan.		1,096	38	160	933	346	558	32	7	46	84	4	17	40	3,361
Indiana	Jan.		795	22	159	638	184	396	25	2	75	91	7	13	19	2,426
Iowa	Jan.		363	12	65	404	96	268	2	1	16	11	2	3	8	1,251
Kansas	Jan.		313	1	33	254	75	105		2	9	3	1	11	4	811
Kentucky	Jan.		302		79	213	105	125	9		6	11	5	5	25	885
Louisiana	Jan.		837	15	68	659	264	167	8		18	11	5	5	3	2,060
Maine	Jan.	1	138		23	135	65	59	10		13	5		15	12	476
Maryland	Jan.	3	282		182	253	49	103	13	6	5	15	3	4	3	921
Massachusetts	Jan.	2	83	6	53	178	61	69	8		9	12	2	1	15	499
Michigan	Jan.		770	29	196	914	263	201	15	8	30	66	26	21	21	2,560
Minnesota	Jan.		342	2	70	363	109	167		6	15	3	7	21	4	1,109
Mississippi	Jan.		380	2	36	252	114	114	3		14	2	6	5		928
Missouri	Jan.		969	8	120	796	281	359	9	3	30	30		2	23	2,630
Montana	Jan.		110		27	137	61	122	7	4	9	4	7	28	7	523
Nebraska	Jan.		192	7	43	218	84	184	1	1	11	16	9	8	6	780
Nevada	Jan.		39		12	40	18	9			3		3	3	2	130
New Hampshire	Jan.		62	1	7	62	15	24	9	1	2	10	4	10	3	210
New Jersey	Jan.	18	461	25	188	478	214	231	65	9	15	48	9	8	15	1,784
New Mexico	Jan.		176		16	120	48	33	9		3	2	1	12	2	423
New York	Jan.	35	635	32	330	664	275	499	99	48	12	111	44	55	54	2,893
North Carolina	Jan.		690	7	108	525	200	158	62	1	27	32	18	7	7	1,842
North Dakota	Jan.		123		20	95	36	115			7	1	3	7	1	408
Ohio	Jan.		833	12	191	928	247	420	45	22	42	87	5	18	14	2,864
Oklahoma	Jan.		383	2	37	293	119	121	11		9	16	2		9	1,002
Oregon	Jan.		352		54	285	122	98	11	1	26	29	14	58	21	1,073
Pennsylvania	Jan.	11	789	10	209	809	255	459	135	11	31	124	2	92	30	2,967
Rhode Island	Jan.		61	2	11	65	19	48	5	3	7	7	1	2	2	234
South Carolina	Jan.		652		91	484	178	148	28	2	16	27	8	8	5	1,647
South Dakota	Jan.		114	3	23	130	71	122		4	3	2	12	12	16	512
Tennessee	Jan.		445	1	132	372	165	170	4	7	7	48	8	7		1,366
Texas	Jan.		1,643	14	148	1,170	304	362	20	3	29	63	10	18	6	3,791
Utah	Jan.		71	1	11	54	46	40	3		2	7		4	20	259
Vermont	Jan.	2	38		7	42	17	22	23		3	2	12	18	1	185
Virginia	Jan.	1	452	1	80	436	144	140	50	7	20	38	18	19	3	1,407
Washington	Jan.		299	8	82	324	232	162	19	3	18	12	4	37	16	1,216
West Virginia	Jan.		206	1	46	198	91	72	6	2	7	20	29	26	9	714
Wisconsin	Jan.		168	3	24	198	56	133	15	1	7	5	3	5	4	624
Wyoming	Jan.		59		22	80	21	42	2		7	1	3	12	2	251
Total	January, 1956	75	22,286	318	4,140	19,044	6,872	8,198	959	218	849	1,251	450	861	710	66,141
Total	January, 1955	97	19,437	221	5,287	18,792	5,161	8,396	541	213	750	1,023	642	1,197	474	62,231

Source: Data from R. L. Polk & Co.

NUMBER AND PER CENT OF TRUCKS IN USE, BY AGE GROUPS

Average Age Is 6.71 Years

Age in Years	1955 Units	1955 % of Total Simple	1955 % of Total Cumul.	1954 Units	1954 % of Total Simple	1954 % of Total Cumul.	1953 Units	1953 % of Total Simple	1953 % of Total Cumul.	1952 Units	1952 % of Total Simple	1952 % of Total Cumul.
Under 1	501,841	5.51	5.51	408,850	4.67	4.67	440,866	5.11	5.11	366,700	4.39	4.39
1-2	689,919	7.57	13.08	842,041	9.61	14.28	791,329	9.17	14.28	995,740	11.94	16.30
2-3	846,931	9.30	22.38	786,008	8.97	23.25	986,754	11.44	25.72	1,103,081	13.22	29.55
3-4	776,276	8.52	30.90	966,514	11.03	34.28	1,078,431	12.50	38.22	935,084	11.21	40.76
4-5	953,787	10.47	41.37	1,055,119	12.04	46.32	906,053	10.50	48.72	953,949	11.43	52.10
5-6	1,036,818	11.38	52.75	880,347	10.04	56.36	918,715	10.65	59.37	762,089	9.13	61.32
6-7	862,071	9.46	62.21	866,072	9.88	66.24	722,543	8.38	67.75	691,537	8.29	69.61
7-8	821,940	9.13	71.34	664,221	7.58	73.82	651,553	7.55	75.30	148,180	1.78	71.39
8-9	624,674	6.86	78.20	594,195	6.78	80.60	133,499	1.55	76.85	64,312	.77	72.16
9-10	551,858	6.06	84.26	114,918	1.31	81.91	56,643	.66	77.51	23,037	.28	72.44
10-11	107,019	1.17	85.43	46,618	.53	82.44	21,109	.24	77.75	222,124	2.66	75.10
11-12	42,815	.47	85.90	17,074	.19	82.63	192,213	2.23	79.98	475,918	5.70	80.80
12-13	14,821	.16	86.06	168,562	1.92	84.55	415,142	4.81	84.79	336,983	4.03	84.83
13-14	148,315	1.63	87.69	349,884	3.99	88.54	288,875	3.35	88.14	245,627	2.94	87.77
14-15	304,021	3.34	91.03	238,334	2.72	91.26	208,594	2.42	90.56	167,136	2.00	89.77
15-16	202,159	2.22	93.25	168,497	1.92	93.18	138,793	1.61	92.17	249,710	2.99	92.76
16-17	141,264	1.55	94.80	108,335	1.24	94.42	203,061	2.35	94.52	199,759	2.39	95.19
17-18	88,925	.97	95.77	154,414	1.76	96.18	158,761	1.84	96.36	111,671	1.34	96.40
18-19	126,032	1.37	97.14	116,249	1.33	97.51	88,127	1.02	97.38	70,835	.85	97.84
19 and older	260,754	2.86	....	218,076	2.49	....	225,362	2.72	....	221,363	2.66	....
Total	9,111,280	100.00	100.00	8,764,408	100.00	100.00	8,626,423	100.00	100.00	8,343,835	100.00	100.00
Age not known	51,164	....	....	36,000	....	....	66,151	....	....	76,020	....	....
Total in use	9,162,444	....	....	8,800,408	....	....	8,692,574	....	100.00	8,419,855	....	....
Average age of known models	6.71 yrs.			6.58 yrs.			6.59 yrs.			6.60 yrs.		

*—Based on data from The Reuben H. Donnelly Corp. as of July 1 of each year.

MOTOR TRUCK FACTORY SALES BY GVW, 1946-1955

	5,000 lb and less		5,001-10,000 lb		10,001-14,000 lb		14,001-16,000 lb		16,001-19,500 lb		19,501-26,000 lb		Over 26,000 lb.		Total	
	Units	% of Total	Units	% of Total	Units	% of Total	Units	% of Total	Units	% of Total	Units	% of Total	Units	% of Total	Units	% of Total
Total Factory Sales from U. S. Plants																
1955	585,856	47.0	212,571	17.1	46,905	3.8	225,755	18.1	65,719	5.3	43,413	3.5	64,769	5.2	1,244,988	100
1954	482,515	46.5	186,733	18.0	39,073	3.8	195,121	18.8	48,560	4.7	45,111	4.3	40,943	3.9	1,038,056	100
1953	563,112	46.8	221,817	18.5	46,624	3.9	185,115	15.4	49,628	4.1	86,773	7.2	49,140	4.1	1,202,209	100
1952	505,316	41.7	234,568	19.3	56,306	4.6	219,284	18.1	45,617	3.8	105,451	8.7	46,246	3.8	1,212,790	100
1951	587,649	41.4	260,360	18.4	99,140	7.0	278,103	19.6	68,899	4.9	81,066	5.7	42,151	3.0	1,417,368	100
1950	627,406	47.1	266,043	20.0	89,156	6.7	219,918	16.5	53,484	4.0	47,029	3.5	29,250	2.2	1,332,285	100
1949	513,148	45.5	279,359	24.8	84,805	7.5	173,137	15.3	37,233	3.3	23,901	2.1	17,391	1.5	1,128,674	100
1948	485,088	35.5	267,720	19.6	182,500	13.4	280,535	20.6	76,711	5.6	50,021	3.7	21,400	1.6	1,363,975	100
1947	375,326	30.7	182,461	15.0	259,808	21.3	291,601	23.9	41,615	3.4	42,744	3.5	26,778	2.2	1,220,333	100
1946	330,733	35.5	88,068	9.5	257,167	27.6	190,885	20.5	24,087	2.6	25,827	2.8	14,008	1.5	930,775	100
Factory Sales for Domestic Use																
1955	522,456	49.6	169,420	16.1	39,688	3.8	180,688	17.2	43,674	4.1	37,860	3.6	58,930	5.6	1,052,716	100
1954	406,016	48.0	153,931	18.3	33,011	3.9	141,550	16.8	33,511	4.0	38,466	4.6	36,991	4.4	843,476	100
1953	512,658	48.3	196,910	18.5	39,649	3.7	147,737	13.9	40,519	3.8	80,146	7.5	45,975	4.3	1,063,594	100
1952	454,055	43.1	206,935	19.7	47,494	4.5	168,770	16.1	33,121	3.2	97,559	9.3	43,190	4.1	1,051,124	100
1951	516,391	43.2	229,065	19.2	84,183	7.0	199,967	16.7	53,568	4.5	72,328	6.1	38,958	3.3	1,194,460	100
1950	579,760	49.0	243,980	20.6	75,993	6.4	169,949	14.4	42,756	3.6	42,149	3.6	27,835	2.4	1,182,422	100
1949	469,255	47.0	258,035	25.9	70,969	7.1	135,604	13.6	28,402	2.8	19,793	2.0	15,609	1.6	997,657	100
1948	420,531	36.2	244,894	21.1	150,340	12.9	217,695	18.7	64,297	5.5	45,118	3.9	19,833	1.7	1,162,708	100
1947	314,543	32.3	165,678	17.1	191,222	19.7	204,589	21.0	34,669	3.6	36,706	3.8	23,897	2.5	971,304	100
1946	291,827	39.1	78,789	10.6	181,408	24.4	137,328	18.4	19,239	2.6	22,894	3.1	13,161	1.8	744,646	100

Source: Automobile Manufacturers Assn.

MOTOR BUS FACTORY SALES—BY TYPE OF BUS

Does Not Include Non-Integral School Buses

	Domestic Market					
Year	City Type	Intercity Type	Special Type†	Total Domestic Market	Total Foreign Market	Total Factory Sales
1955	2,615	916	368	3,599	424	4,023
1954	2,407	834	541	3,782	336	4,118
1953	2,290	855	586	3,731	326	4,057
1952	1,987	691	1,823	4,511	864	5,375
1951	4,754	1,233	2,797	8,784	676	9,460
1950	2,748	581	583	4,012	896	4,908
1949	3,402	690	802	4,894	617	5,511
1948	6,971	2,558	997	10,526	1,773	12,299
1947	11,779	3,451	1,400	16,650	2,460	19,110
1946	6,764	2,276	159	9,199	892	10,091

†—Includes integral school buses. As reported by the Automobile Manufacturers Assn.

REVENUE MOTOR BUS FACTORY SALES

From Plants Located in the United States

	1955	1954	1953	1952	1951	1950	1949	1948	1947	1946	1944
January	190	405	254	778	661	219	658	1,382	1,273	447	231
February	176	328	190	625	521	133	418	1,101	1,303	285	245
March	325	348	236	569	829	199	545	1,430	1,421	527	336
April	519	379	145	597	819	268	514	1,056	1,650	948	352
May	313	323	367	423	742	412	564	1,288	1,853	789	367
June	309	351	380	484	838	598	632	1,068	1,628	774	293
July	296	246	376	224	665	397	439	1,012	1,806	862	381
August	434	309	447	349	783	457	444	771	1,765	1,067	470
September	223	326	348	387	743	423	298	1,143	1,607	833	563
October	469	372	519	389	1,174	553	322	679	1,667	975	594
November	359	305	371	319	833	584	308	545	1,416	1,146	484
December	410	427	424	231	845	665	369	824	1,721	1,438	1,483
Total	4,023	4,118	4,057	5,375	9,453	4,908	5,511	12,299	19,110	10,091	5,799

As reported by the Automobile Manufacturers Assn.

NEW TRANSIT EQUIPMENT

	Railway					
Year	Surface	Subway and Elevated	Total	Trolley Coaches	Motor Buses	Grand Total
1950	4	199	203	179	2,668	3,050
1951	56	140	196	600	4,552	5,348
1952	19	0	19	224	1,749	1,992
1953	0	0	0	0	2,246	2,246
1954	0	260	260	0	2,225	2,485

Source: American Transit Assn.

TRANSIT RIDERS BY TYPE OF SERVICE

(Millions of Persons)	Railway					
Year	Surface	Subway and Elevated	Total	Trolley Coaches	Motor Buses	Grand Total
1950	3,904	2,264	6,168	1,658	9,420	17,246
1951	3,101	2,189	5,290	1,633	9,202	16,125
1952	2,477	2,124	4,601	1,640	8,878	15,119
1953	2,036	2,040	4,076	1,566	8,260	13,902
1954	1,489	1,912	3,401	1,367	7,624	12,392

Source: American Transit Assn.

INTERCITY PASSENGER-MILES TRAVELED BY MODE OF TRANSPORTATION

In Billions of Passenger Miles

		Private Automobiles		Railroads		Intercity Buses		Air Lines		Waterways	
Year	Total Intercity Travel	Miles	% of Total	Miles	% of Total	Miles	% of Total	Miles	% of Total	Miles	% of Total
1950	396.9	337.3	85.1	27.5	6.9	22.3	5.5	8.6	2.2	1.2	0.3
1951	445.8	379.3	85.1	30.4	6.8	23.4	5.2	11.4	2.6	1.3	0.3
1952	477.7	410.3	85.9	30.0	6.3	22.6	4.7	13.4	2.8	1.4	0.3
1953	498.0	432.1	86.8	27.5	5.5	21.3	4.3	15.6	3.1	1.5	0.3
1954	511.1	448.0	87.7	24.7	4.8	19.0	3.7	17.7	3.5	1.7	0.3

Source: Compiled by National Assn. of Motorbus Operators from records of Interstate Commerce Commission.

TRAILER REGISTRATIONS

1955 Trailers and Semi-Trailers

State	Tourist[1]	Commercial	Total
Alabama			16,381
Arizona	18,350	8,169	26,519
Arkansas			32,678
California			491,169
Colorado			20,000
Connecticut	21,285	10,213	31,498
Delaware			7,523
District of Columbia			1,616
Florida	49,387	93,818	143,205
Georgia	31,060	13,518	44,592
Idaho	4,500	35,500	40,000
Illinois	3,476	86,086	89,562
Indiana			135,000
Iowa			113,806
Kansas	6,321	12,985	19,306
Kentucky			
Louisiana	3,000	49,576	52,576
Maine			27,709
Maryland			24,222
Massachusetts			80,181
Michigan	19,677	278,983	298,660
Minnesota	23,272	36,872	42,855
Mississippi	29,983	8,659	38,642
Missouri			86,000
Montana	12,786	10,802	23,588
Nebraska	50,169	11,933	62,102
Nevada			9,327
New Hampshire			14,000
New Jersey			41,401
New Mexico	3,800	8,000	11,800
New York			134,800
North Carolina	67,569	20,667	88,236
North Dakota	3,392	551	3,943
Ohio	13,919	205,347	219,266
Oklahoma	3,520	14,296	17,816
Oregon			24,967
Pennsylvania	4,031	108,798	112,829
Rhode Island			12,304
South Carolina	2,646	8,440	11,086
South Dakota	3,458	34,580	38,308
Tennessee			8,327
Texas	20,000	185,000	205,000
Utah	2,852	3,177	6,029
Vermont			8,236
Virginia	33,496	16,926	50,422
Washington	56,009	20,716	76,725
West Virginia	9,500	2,950	12,450
Wisconsin	7,523	15,496	23,019
Wyoming	4,054	12,119	16,173
Total	509,035	1,314,447	3,095,844

[1] Includes light 2-wheel trailers.

TRUCK TRAILER SHIPMENTS BY TYPE

Type of Trailer	1955	1954	1953	1952
Vans				
Insulated and refrigerated	5,183	4,250	4,077	3,382
Steel	1,081	831	890	895
Aluminum	4,102	3,419	3,187	2,487
Furniture	1,967	1,141	1,468	1,437
Steel	1,731	1,061	1,345	1,437
Aluminum	236	80	123	
All other closed top	34,303	18,118	22,236	17,199
Steel	10,797	6,639	11,663	9,016
Aluminum	23,506	11,479	10,573	8,183
Open top	4,553	2,280	3,869	2,656
Steel	2,063	1,164	1,760	1,252
Aluminum	2,494	1,116	2,109	1,404
Total Vans	46,010	25,789	31,650	24,674
Tanks				
Petroleum	5,019	5,417	3,879	4,336
All other	699 (c)	658 (c)	830 (c)	764
Total Tanks	5,718	6,075	4,709	5,100
Pole, pipe and logging				
Single axle	789	599	593	982
Tandem axle	1,368	797	997	1,485
Total	2,157	1,396	1,590	2,467
Platforms				
Racks, livestock and stake	1,255	888	4,104	4,151
Grain bodies	1,016	785	905	1,182
Flats (all types)	8,108	5,333	9,111	7,729
Total Platforms	10,379	7,006	14,120	13,062
Low-bed heavy haulers	2,867	3,090	5,415	5,529
Dump trailers	2,085	996	1,018	947
All other trailers (b)	4,053	7,955	34,691	2,609
Total Complete Trailers	73,269	52,307	93,393	54,588
Trailer chassis	3,003	2,294	3,306	3,385
Total Trailer and Chassis	76,272	54,601	96,699	57,973

(b)—Includes off-highway, auto transport, public utility trailers, and converter dollies. (c)—Includes food and L.P.G. trailers.

Source: As reported by Industry Division, Bureau of the Census.

TRUCK TRAILER SHIPMENTS BY YEARS, 1946-1955

	Production	Shipments	
		Units	Value
1955	77,854	76,272	$370,711,000
1954	55,399	54,582	245,501,000
1953	97,102	96,699	294,849,000
1952	57,078	57,973	228,378,000
1951	67,384	64,691	245,315,000
1950	64,617	65,986	229,685,000
1949	33,097	34,273	119,098,000
1948	44,478	46,960	139,996,000
1947	53,096	55,372	138,383,000
1946	76,234	73,001	151,384,000

Source: Industry Division, Bureau of the Census.

TRUCK TRAILER SHIPMENTS BY MONTHS

Month	1955		1954	
	Shipments	Value	Shipments	Value
January	4,452	$ 21,415,000	4,677	$ 17,126,000
February	4,937	23,355,000	4,224	17,170,000
March	6,332	29,863,000	4,859	19,711,000
April	6,352	29,803,000	4,470	18,839,000
May	6,262	29,537,000	4,539	18,537,000
June	6,948	33,037,000	5,085	21,718,000
July	5,889	28,782,000	4,168	21,114,000
August	7,050	35,006,000	4,076	20,277,000
September	7,058	35,557,000	4,148	20,240,000
October	6,961	35,174,000	4,626	23,550,000
November	6,991	34,348,000	4,941	24,218,000
December	7,040	34,832,000	4,771	23,001,000
Total	76,272	$370,711,000	54,582	$245,501,000

Source: As reported by the Industry Division, Bureau of the Census.

FACTORY SALES OF SPECIAL TYPES OF VEHICLES

Vehicle Type	1955	1954	1953	1952	1951	1950
Station Wagons[1]	780,151	364,234	318,178	189,651	194,233	159,944
Motor Coaches[2]	4,023	4,118	4,057	5,375	9,460	4,908
School Bus Chassis	26,535	22,465	21,284	19,452	31,891	19,953
Trucks with Cab-Over-Engine	45,815	25,268	24,712	19,592	25,482	22,370
Trucks with Diesel Engines	16,931	10,546	10,872	13,165	16,494	13,903
Multi-Stop Trucks	23,850	19,507	19,246	18,493	36,429	15,719
Ambulances and Funeral Vehicles		2,880	3,034	2,662	28,867	21,691

[1]—Includes station wagons built on truck chassis. [2]—Does not include nonintegral school bus. Source: As reported by American Automobile Assn.

REVISED INDEXES OF INTERCITY TRUCK TONNAGE

ICC Class I Common and Contract Property Carriers

Region	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955
New England	78	88	92	90	89	97	99	102	99	122	126	128	135	134	138
Middle Atlantic	64	69	73	75	72	78	90	104	106	133	142	140	150	141	164
Central	64	63	70	67	65	73	89	104	107	149	154	149	167	148	175
Southern	55	62	72	73	71	69	78	94	106	134	146	159	172	192	222
Northwestern	41	49	61	64	67	78	91	104	106	123	134	133	143	147	161
Midwestern	46	56	63	63	65	70	85	103	113	133	141	141	151	150	172
Southwestern	44	50	64	64	66	71	87	103	110	139	164	168	177	184	225
Rocky Mountain	45	61	67	67	62	67	88	102	110	129	152	176	200	214	227
Pacific	58	65	76	81	83	87	96	101	103	119	141	147	148	151	165
United States	61	65	72	72	71	77	90	103	107	137	148	148	160	154	177

Compiled by American Trucking Assns. from reports of ICC Class I Common and Contract Intercity Carriers of Property. Indexes are based on 1947–1949 average = 100. This is a revised series replacing the former base of 1941 = 100. *—Preliminary

COMPARISON OF INTERCITY TRUCK TONNAGE, 1955-1954

By Commodity Classes

Commodity Class	Number of Carriers	Tonnage Carried: Tons 1955	Tons 1954	% of Total 1955	% of Total 1954	% Change 1955 from 1954
General Freight	987	128,438,926	113,995,981	48.4	49.5	+12.7
Household Goods	53	1,005,584	899,888	0.4	0.4	+11.7
Heavy Machinery	43	3,155,294	2,728,382	1.2	1.2	+15.6
Liquid Petroleum	153	73,326,345	63,731,088	27.6	27.7	+15.1
Refrigerated Liquids	13	1,544,743	1,325,635	0.6	0.6	+16.5
Refrigerated Solids	43	2,031,404	1,858,306	0.8	0.8	+ 9.3
Agricultural Commodities	30	3,003,378	2,721,610	1.1	1.2	+10.4
Motor Vehicles	88	13,295,247	9,263,023	5.0	4.0	+43.5
Building Materials	43	5,803,009	5,259,494	2.2	2.3	+10.3
All Other	309	33,668,964	28,404,494	12.7	12.3	+18.5
Total—All Classes	1762	265,272,896	230,187,901	100.0	100.0	+15.2

Compiled by American Trucking Assns. from reports of ICC Class I Common and Contract Intercity Carriers of Property. It by no means represents TOTAL tonnage.

U. S. GOVERNMENT FLEET OPERATING FACTS

As reported by the General Services Administration for year ending June 30, 1955

Item	Department or Agency	All Automobiles	Station Wagons	Ambulances	Buses	TRUCKS—GROSS VEHICLE WEIGHT: 12,499 and Less (1 Ton)	12,500 to 16,999 (1½-2½ Ton)	17,000 and Over (3 Ton and Over)	Total Vehicles
Number of Vehicles	Civilian Agencies	20,241	1,178	406	1,106	53,348	13,423	5,220	94,922
	Dept. of Defense	15,703	763	2,826	5,566	52,585	27,942	10,891	116,276
	All Vehicles	35,944	1,941	3,232	6,672	105,933	41,365	16,111	211,198
Avg. Miles Per Vehicle Per Year	Civilian Agencies	11,603	9,447	5,053	12,443	9,316	6,348	8,551	9,366
	Dept. of Defense	11,688	4,868	4,536	10,487	8,896	4,716	5,911	8,000
	All Vehicles	11,641	7,575	4,596	10,780	9,098	5,211	6,727	8,529
Avg. Miles Per Gallon of Fuel	Civilian Agencies	14.7	13.8	10.8	5.8	9.8	6.9	5.5	.....
	Dept. of Defense	16.5	18.0	9.6	5.5	11.7	7.0	4.6	.....
	All Vehicles	15.4	14.7	9.7	5.6	10.7	6.9	5.0	.....
Total Cost(1) Per Mile	Civilian Agencies	$.0386	$.0452	$.0932	$.1106	$.0684	$.1278	$.1379	.....
	Dept. of Defense	.0452	.0485	.1031	.0943	.0580	.1101	.1150	.....
	All Vehicles	$.0415	$.0461	$.1018	$.0971	$.0632	$.1166	$.1240	.....
Operation Cost Per Mile	Civilian Agencies	$.0245	$.0259	$.0476	$.0635	$.0304	$.0510	$.0627	.....
	Dept. of Defense	.0189	.0191	.0347	.0395	.0228	.0355	.0407	.....
	All Vehicles	$.0220	$.0242	$.0363	$.0436	$.0266	$.0412	$.0494	.....
Maintenance Cost Per Mile	Civilian Agencies	$.0141	$.0193	$.0456	$.0471	$.0380	$.0768	$.0752	.....
	Dept. of Defense	.0263	.0294	.0684	.0548	.0352	.0746	.0743	.....
	All Vehicles	$.0195	$.0219	$.0655	$.0535	$.0366	$.0754	$.0746	.....
Number of Vehicles Disposed of	Civilian Agencies	3,156	248	23	140	5,464	1,036	479	10,546
	Dept. of Defense	.....	.....	.....	.....	.....	.....	.....	.....
	All Vehicles	.....	.....	.....	.....	.....	.....	.....	.....

(1)—Includes Operation and Maintenance.

SECTION 3

SELECTION & OPERATION

1956 COMMERCIAL CAR JOURNAL'S FLEET OPERATORS' REFERENCE ANNUAL

STATE SIZE AND WEIGHT LIMITS 126
SAFETY EQUIPMENT REQUIRED 129
TRANSMISSION RATIOS 132
TRANSPORTATION ENGINEERING FORMULAS 133
THIRD AXLE SPECIFICATIONS 134
STATE MUD GUARD REQUIREMENTS 137
BUS SPECIFICATIONS 138
STATE VEHICLE INSPECTION LAWS 140
TRUCK SPECIFICATIONS 141
MAINTENANCE TRAINING FILMS 166
SELECTED MAINTENANCE MANUALS 184

STATE, SIZE and

STATE	SIZE RESTRICTIONS							GROSS WEIGHT (LEGAL LIMITS)			(See NOTE) PRACTICAL GROSS WEIGHT LIMITS (In thousands of pounds) Below Limits Apply to Pneumatic Tires Unless Otherwise Specified									
			LENGTH																
	Width (Inches)	Height (Feet)	Single Unit	Tractor Semi-Trailer	Other Combinations	Number of Trailers (Semi-Trailer—½)	Minimum Tandem Axle Spacing	Pounds Per Inch of Tire Width	Per Axle (1000 lb.)	Tandem Axles 4 Feet apart (1000 lb.)	4-Wheel Single Unit	6-Wheel Single Unit	4-Wh. Tractor 2-Wh. Semi-Tr.	4-Wh. Tractor 4-Wh. Semi-Tr.	6-Wh. Tractor 4-Wh. Semi-Tr.	4-Wh. Truck 4-Wh. Trailer	4-Wh. Truck 6-Wh. Trailer	6-Wh. Truck 4-Wh. Trailer	6-Wh. Truck 6-Wh. Trailer	Tractor, Semi-T. & Full Trailer Combs.
TVX Ala.	96	m 12½	35k	50	NP	½	40	NS	18	36	36	54	54	64.6	64.6	NP	NP	NP	NP	NP
Y Ariz.	102	13½	40	65	65	1½	40	NS	18	32	36	50	54	68	76.8	72	76.8	76.8	76.8	76.8
V Ark.	96	13½	35k	50	50	NR	40	NS	18	32	18b	32b	36b	50b	56b	54b	56b	56b	56b	56b
Y Cal.	d 96	13½	35ak	60	60	NR	NS	NS-P 600-S	18	32	36	50	54	66	76.8	72	76.8	76.8	76.8	76.8
X Colo.	e 96	12½	35ak	60	60	2	40	NR	18-I 16-J	36	30	46	*54	*72	*73.6	72	*73.6	*73.6	*73.6	*73.6
T Conn.	102	12½	45	45	NP	½	NS	NS-P 800-S	22.4	36	32	50	50	60	60	NP	NP	NP	NP	NP
Y Del.	96	m 12½	35k	50	60	1½	48	700	20	36	30c	40c	48c	60c	60c	52c	52c	60c	60c	60c
VY D. C.	96	12½	35	50	50	1 or ½	40	NS	22	36	44	60	65.4	65.4	65.4	65.4	65.4	65.4	65.4	NP
Y Fla.	96	m 12½	40a	50	50	1 or ½	40	550	20	40	40	60	60	64.6	64.6	64.6	64.6	64.6	64.6	NP
Ga.	96	13½	39.5kn	48	48	1 or ½	40	NR	20.3In 16-Jn	40.6n	40.6n	61n	63.2n	63.2n	63.2n	63.2n	63.2n	63.2n	63.2n	NP
ZY Idaho	e 96	14	35f	60	65	1½	NS	800 o	18	32	36	50	54	68	76.8	72	76.8	76.8	76.8	76.8
Z Ill.	96	13½	42	50	50	1½	40	800	18	32	36	41	45	59	68	63	72	72	72	72
Ind.	96	13½	36k	50	50	1½	40	800	18	32	36	50	54	68	72	72	72	72	72	72
TY Iowa	96	m 12½	35ak	45	NP	½	40	NR	18	32	36	50	54	65.4	65.4	NP	NP	NP	NP	NP
Y Kan.	e 96	12½	35ak	50	50	1 or ½	40	NR	18-I 16-J	32	36	50	54	63.8	63.8	63.8	63.8	63.8	63.8	NP
ZT Ky.	96	12½	35	45	NP	½	42	600	18	36	36	42	42	42	42	NP	NP	NP	NP	NP
La.	96	m 12½	35ak	50	60	1 or ½	40	450	18-I 16-J	32	18b	32b	36b	50b	64b	54b	NP	68b	68b	NP
Y Me.	96	12½	45	45	45	1 or ½	48	600	22-G	32	32	50	50	50	50	50	50	50	50	NP
X Md.	96	m 12½	55	55	55	NR	NS	NS	22.4	40	44.8	62.4	65	65	65	65	65	65	65	65
YT Mass.	e 96	NR	35u	45	NS	1 or ½	NS	800	22.4	36	44.8	60	60	60	60	47.8	47.8	63	63	NP
Mich.	96	m 12½	35k	55	55	1½	42	700	18-P 16-S	26p	36-W	44-W	54-W	68-W	76-W	72-W	86-W	86-W	94-W	104-Wq
Y Minn.	e 96	m 12½	40	45	45	1 or ½	40	NR	18-P 10.8-S	28	36	46	54	64	66.5	66.5	66.5	66.5	66.5	NP
YZ Miss.	96	m 12½	35ak	45	45	1 or ½	40	Table	18-I 16-J	28.6p	27	41	45	55.9	55.9	55.9	55.9	55.9	55.9	NP
Y Mo.	96	12½	35ak	45	45	NR	40	600	18-I 16-J	32	36	50	54	60	60	60	60	60	60	60
Y Mont.	e 96	13½	35k	60	60	1 or ½	40	NS	18	32	36	50	54	68	76.8	72	76.8	76.8	76.8	NP
Y Nebr.	96	12½	35ak	50	50	1 or ½	40	NR	18	32	36	50	54	64.6	64.6	64.6	64.6	64.6	64.6	NP
Y Nev.	96	NR	NR	NR	NR	NR	42	600	18	32	36	50	54	68	76.8	72	76.8	76.8	76.8	76.8
Y N. H.	96	13½	35u	45	45	NR	NS	600	22.4	36i	33.4	40j	52.8	66.4	66.4	66.4	66.4	66.4	66.4	66.4
N. J.	96	13½	35	45	50	1 or ½	40	800	22.4h	32	30	40	60	60	60	60	60	60	60	NP
VY N. M.	e 96	13½	40	65	65	1½	40	600	21.6	34.3	43.2	55.9	64.8	77.5	86.4	86.4	86.4	86.4	86.4	86.4
X N. Y.	96	13	35ak	50	50	1 or ½	48	800-P 640-S	22.4	36	44.8l	58.4l	65l	65	65	65	65	65	65	NP
Z N. C.	e 96	m 12½	35ak	48	48	1 or ½	48	600	18-In 17-Jn	38n	L 31.5n	L 46.2n	46.2n	58.8n	58.8n	58.8n	58.8n	58.8n	58.8n	NP
X N. D.	96	12½	40n	50	50	1 or ½	40	550	18	30	38	48	54	*61.5	*61.5	*61.5	*61.5	*61.5	*61.5	NP
X Ohio	96	m 12½	35ak	50	60	NR	NS	650	19	24p	38	50.5	57	69.5	*71.6	76	78	78	78	78

WEIGHT LIMITS

SELECTION & OPERATION

STATE	SIZE RESTRICTIONS							GROSS WEIGHT (LEGAL LIMITS)			(See NOTE) PRACTICAL GROSS WEIGHT LIMITS (In thousands of pounds) Below Limits Apply to Pneumatic Tires Unless Otherwise Specified									
	Width (Inches)	Height (Feet)	LENGTH: Single Unit	LENGTH: Tractor Semi-Trailer	LENGTH: Other Combinations	Number of Trailers (Semi-Trailer—½)	Minimum Tandem Axle Spacing	Pounds Per Inch of Tire Width	Per Axle (1000 lb.)	Tandem Axle 4 feet apart (1000 lb.)	4-Wheel Single Unit	6-Wheel Single Unit	4-Wh. Tractor 2-Wh. Semi-Tr.	4-Wh. Tractor 4-Wh. Semi-Tr.	6-Wh. Tractor 4-Wh. Semi-Tr.	4-Wh. Truck 4-Wh. Trailer	4-Wh. Truck 6-Wh. Trailer	6-Wh. Truck 4-Wh. Trailer	6-Wh. Truck 6-Wh. Trailer	Tractor, Semi-T. & Full Trailer Combs.
Y Okla.	96	13½	35k	50	50	1 or ½	40	650	18	32	36	50	54	60	60	60	60	60	60	NP
VY Ore.	96	12½	35	50	50	1 or ½	40	550	18	32	36	50	54	60	60	60	60	60	60	NP
Pa.	96	m 12½	35akr	50	50	1 or ½	36	800	22.4	36	H 33	H 47	H 50	H 60	H 60	H 62	H 62	H 62	H 62	NP
R. I.	102	12½	40	50	50	1 or ½	40	800	22.4	NS	36	44	50	50	50	72	80	80	80	NP
Y S. C.	96	12½	40a	50	50	1 or ½	40	NR	20-I 16-J	32	40	52	60	68.3	68.3	68.3	68.3	68.3	68.3	NP
Y S. D.	96	13	35ak	50	50	1 or ½	40	600	18-I 16-J	32	36	50	54	64.6	64.6	64.6	64.6	64.6	64.6	NP
TY Tenn.	96	12½	35k	45	45	1 or ½	40	NS	18	32	36	50	54	55.9	55.9	39.5	39.5	53.5	53.5	NP
Y Tex.	e 96	13½	35k	45	50	1 or ½	40	650-I 600-J	18-I 16-J	32	36	50	54	58.4	58.4	58.4	58.4	58.4	58.4	NP
Y Utah	96	14	45	60	60	2	40	NS	18-P 13.5-S	33	36	51	54	69	79.9	72	79.9	79.9	79.9	79.9
Vt	96	12½	50	50	50	1 or ½	40	600	NR	NR	30	40	50	60	60	50	60	50	60	NP
VZ Va.	96	m 12½	35k	50s	50s	1 or ½	40	650	18	32s	36s	50s	54s	56.8s	56.8s	56.8s	56.8s	56.8s	56.8s	NP
Y Wash.	96	12½	35g	60	60	1½	42	500	18	32	28	36	46	60	68	64	64	72	72	72
Y W. Va.	96	m 12½	35ak	45	45	1 or ½	40	NR	18	32	36	50	54	60.8	60.8	60.8	60.8	60.8	60.8	NP
VX Wis.	96d	m 12½	35k	50	50	1 or ½	40	800	18-C 12-D	32n	36C	48C	54C	66C	68C	68C	68C	68C	68C	NP
Y Wyo.	e 96	13½	40	60	60	2	40	NS	18	32	36	50	54	68	73.9	72	73.9	73.9	73.9	73.9

*—See explanation in Note at right.

Table—There is a table of axle weights based upon tire weights.

a—Vehicles over 35-ft length must have 3 axles, except buses in Fla. and S. C.

b—Plus weight on front axle of vehicle.

c—With power brakes.

d—104 in. for urban buses.

e—102-in. buses permitted subject to the following restrictions: Idaho, Mont. and Wyo.—on highways 20 ft wide; N. M.—on designated highways; Kan., Mass., Minn., N. C. and Texas in certain urban areas.

f—40-ft, 2-axle vehicles permitted on highways designated by Board of Highway Directors.

g—Director of Highways may allow 3-axle buses 40 ft on designated highways.

h—Vehicles registered after March 1, 1950.

i—Except on 3-axle single units.

j—47.5 if drive on both rear axles.

k—Buses permitted 40 ft; in Va. may be permitted by Highway Commission (see note z); 42 ft in Del.; 45 ft in Okla.; 35.2 in Ga.

l—New provision awaits Governor's approval.

m—Auto transporters allowed 13½ ft (also covered vans in Wash., baled hay or straw carriers in Md., hay, straw or small boat carriers in Mich.).

n—Including tolerance.

o—Graduated according to tire width.

p—Mich.—32,000 lb on one set of tandem axles in a combination on designated highways; Miss. —32,000 lb on designated highways; Ohio—31,500 lb on axles spaced over 4 ft but less than 8 ft apart; Va.—36,000 lb on certain highways.

q—120,000 lb for 6-Wh. Tractor, 4-Wh. Semi-T and 6-Wh. Full Trailer combination. See Note at right.

r—30-in. tolerance permitted auto transporter semi-trailers.

s—Awaits Governor's approval. If approved, takes effect 90 days after legislature adjourns.

u—Buses with 3 axles permitted 40 ft on designated highways subject to 18,000-lb limit per axle.

C—Permissible on "Class A" highways.

D—Permissible on "Class B" highways.

G—Axles less than 10 ft apart limited to 16,000 lbs per axle.

H—Maximum shown. In practice, permissible gross weight depends on chassis weight.

I—Permissible on balloon tires.

J—Permissible on other than balloon tires.

L—2-axle buses permitted 23,625 lbs maximum net weight; 3-axle bus, 31,500 lbs.

NP—Not Permitted.

NR—No restriction.

NS—Not specified.

P—Pneumatic tires.

S—Solid tires.

T—With the following exceptions full trailers are permitted the same gross weight as other single units:—
Ala., Conn., Iowa, Ky—Full trailers prohibited.
Mass.—Trailer and load limited to 3,000 lbs.
Tenn.—Trailer and load limited to 3,500 lbs.

V—Solid tires prohibited.

W—See Note above.

X—States where gross weight is determined by formula. (See "Bridge Formulae" in next column and formula computations on next page.)

Y—States where gross weight is determined by table of axle spacing. (See "Axle Spacing" next column.)

Z—See "Restrictions Peculiar to Certain States" on next page.

BRIDGE FORMULAE

Colo.—800 (L plus 40).

Ga.—700 (L plus 40).

Md.—850 (L plus 40) any unit or combination, provided that gross weight of any vehicle or combination shall not exceed 65,000 lbs.

N. Y.—650 (L plus 40) any unit or combination having 3 or more axles, provided that gross weight shall not exceed 65,000 lbs.

N. D.—750 (L plus 40) any unit or combination.

Ohio—800 (L plus 47½).

Wisc.—1,000 (L plus 26) or gross weights graduated from 32,000 lbs if axle spacing is 6 ft to 68,000 lbs if spacing is 40 ft or more.

AXLE SPACING

Ala.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 64,650 lbs is spacing is 45 ft or more.

Ariz.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 76,800 lbs if spacing is 56 ft or more.

Calif.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 76,800 lbs if spacing is 56 ft or more.

Del.—Gross weights graduated from 36,000 lbs if axle spacing is 4 ft to 60,000 lbs if spacing is 39 feet or more.

D. C.—Gross weights graduated from 38,000 lbs if axle spacing is 4 ft to 65,400 lbs if spacing is 46 ft or more.

Fla.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 64,650 lbs if spacing is 45 ft.

Idaho—Gross weights graduated from 30,500 lbs if axle spacing is 3 ft to 76,800 lbs if spacing is 56 ft or more; separate table of axle spacing ranging from 37,800 to 79,000 lbs for haulers of wood, aggregates, cattle and farm products plus 5% tolerance on wheel and axle loads.

Iowa—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 65,478 lbs if spacing is 42 ft or more.

Kans.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 63,890 lbs if spacing is 44 ft.

Maine—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 50,000 lbs if spacing is 27 ft or more.

Mass.—(effective Dec. 1, 1955) Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 60,000 lbs if spacing is 35 ft or more.

Minn.—Gross weights graduated from 28,000 lbs if axle spacing is 4 ft to 66,500 lbs if spacing is 42 ft or more.

Miss.—Gross weights graduated from 28,650 lbs if axle spacing is 4 ft to 52,650 lbs if spacing is 30 ft or more; on designated highways from 32,000 lbs if spacing is 4 ft to 55,980 lbs if spacing is 34 ft or more.

Mo.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 60,010 lbs if spacing is 39 feet or more.

Mont.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 76,800 lbs if spacing is 57 feet or more.

Nebr.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 64,650 lbs if spacing is 45 ft or more.

Nev.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 76,800 lbs if spacing is 56 ft or more.

N. H.—Gross weights graduated up to 52,800 for 3-axle combinations and to 66,400 lbs for 4-axle combinations.

N. M.—Gross weights graduated from 34,320 lbs if axle spacing is 4 ft to 86,400 lbs if spacing is 56 ft.

Okla.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 60,000 lbs if spacing is 39 ft or more.

Ore.—Gross weights graduated from 32,200 lbs if axle spacing is 6 ft to 76,000 lbs if spacing is 55 ft or more, provided that no vehicle or combination shall exceed 60,000 lbs except under permit.

S. C.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 68,350 lbs if axle spacing is 50 ft or more.

S. D.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 64,650 lbs if axle spacing is 45 ft or more.

Tenn.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 55,980 lbs if axle spacing is 37 ft or more.

Texas—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 58,420 lbs if spacing is 41 ft.

Utah—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 79,990 lbs if spacing is 54 ft or more.

Wash.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 72,000 lbs if axle spacing is 57 feet or more.

W. Va.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 73,280 lbs if spacing is 57 feet, provided that no vehicle or combination shall exceed 60,800 lbs except under permit.

Wyo.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 73,950 lbs if spacing is 57 feet.

NOTE ON "W" AND ASTERISK

Except when shown by asterisk or when followed by the letter "W," the above gross weight limits are the limits fixed by state law.

When shown by asterisk the above limits are computations made by the National Highway Users Conference to show what it considers to be practical gross weights where gross weights are arrived at by application of one of the formulae shown below under Footnote "X." In making these computations, wheel base was arrived at by deducting 8 ft. total over-hang front and rear from permissible overall length of unit or combination; tandem axles were considered to be a minimum permissible distance apart. When actual over-hang is less than 8 ft. additional gross weight will be possible.

When followed by the letter "W," the limits shown are maximum possible weights where gross weight is determined by permissible axle weight. These limits are possible only when each axle carries a gross weight equal to the permissible axle limit as shown.

STATE, SIZE and

STATE	SIZE RESTRICTIONS							GROSS WEIGHT			(See NOTE) PRACTICAL GROSS WEIGHT LIMITS (In thousands of pounds)									
			LENGTH					(LEGAL LIMITS)			Below Limits Apply to Pneumatic Tires Unless Otherwise Specified									
	Width (Inches)	Height (Feet)	Single Unit	Tractor Semi-Trailer	Other Combinations	Number of Trailers (Semi-Trailer–½)	Minimum Tandem Axle Spacing	Pounds Per Inch of Tire Width	Per Axle (1000 lb.)	Tandem Axles 4 feet apart (1000 lb.)	4-Wheel Single Unit	6-Wheel Single Unit	4-Wh. Tractor 2-Wh. Semi-Tr.	4-Wh. Tractor 4-Wh. Semi-Tr.	6-Wh. Tractor 4-Wh. Semi-Tr.	4-Wh. Truck 4-Wh. Trailer	4-Wh. Truck 6-Wh. Trailer	6-Wh. Truck 4-Wh. Trailer	6-Wh. Truck 6-Wh. Trailer	Tractor, Semi-T. & Full Trailer Combs.
TVX Ala.	96	m 12½	35k	50	NP	½	40	NS	18	36	36	54	54	64.6	64.6	NP	NP	NP	NP	NP
Y Ariz.	102	13½	40	65	65	1½	40	NS	18	32	36	50	54	68	76.8	72	76.8	76.8	76.8	76.8
V Ark.	96	13½	35k	50	50	NR	40	NS	18	32	18b	32b	36b	50b	56b	54b	56b	56b	56b	56b
Y Cal.	d 96	13½	35ak	60	60	NR	NS	NS-P 600-S	18	32	36	50	54	68	76.8	72	76.8	76.8	76.8	76.8
X Colo.	e 96	12½	35ak	60	60	2	40	NR	18-I 16-J	36	30	46	*54	*72	*73.6	72	*73.6	*73.6	*73.6	*73.6
T Conn.	102	12½	45	45	NP	½	NS	NS-P 800-S	22.4	36	32	50	50	60	60	NP	NP	NP	NP	NP
Y Del.	96	m 12½	35k	50	60	1½	48	700	20	36	30c	40c	48c	60c	60c	52c	52c	60c	60c	60c
VY D. C.	96	12½	35	50	50	1 or ½	40	NS	22	38	44	60	65.4	65.4	65.4	65.4	65.4	65.4	65.4	NP
Y Fla.	96	m 12½	40a	50	50	1 or ½	40	550	20	40	40	60	60	64.6	64.6	64.6	64.6	64.6	64.6	NP
Ga.	96	13½	39.5kn	48	48	1 or ½	40	NR	20.3In 16-Jn	40.8n	40.8n	61n	63.2n	63.2n	63.2n	63.2n	63.2n	63.2n	63.2n	NP
ZY Idaho	e 96	14	35f	60	65	1½	NS	800 o	18	32	36	50	54	68	76.8	72	76.8	76.8	76.8	76.8
Z Ill.	96	13½	42	50	50	1½	40	800	18	32	36	41	45	59	68	63	72	72	72	72
Ind.	96	13½	36k	50	50	1½	40	800	18	32	36	50	54	68	72	72	72	72	72	72
TY Iowa	96	m 12½	35ak	45	NP	½	40	NR	18	32	36	50	54	65.4	65.4	NP	NP	NP	NP	NP
Y Kan.	e 96	12½	35ak	50	50	1 or ½	40	NR	18-I 16-J	32	36	50	54	63.8	63.8	63.8	63.8	63.8	63.8	NP
ZT Ky.	96	12½	35	45	NP	½	42	600	18	36	36	42	42	42	42	NP	NP	NP	NP	NP
La.	96	m 12½	35ak	50	60	1 or ½	40	450	18-I 16-J	32	18b	32b	36b	50b	64b	54b	NP	68b	68b	NP
Y Me.	96	12½	45	45	45	1 or ½	48	600	22-G	32	32	50	50	50	50	50	50	50	50	NP
X Md.	96	m 12½	55	55	55	NR	NS	NS	22.4	40	44.8	62.4	65	65	65	65	65	65	65	65
YT Mass.	e 96	NR	35u	45	NS	1 or ½	NS	800	22.4	36	44.8	60	60	60	60	47.8	47.8	63	63	NP
Mich.	96	m 12½	35k	55	55	1½	42	700	18-P 16-S	26p	36-W	44-W	54-W	68-W	76-W	72-W	86-W	86-W	94-W	104-Wq
Y Minn.	e 96	m 12½	40	45	45	1 or ½	40	NR	18-P 10.8-S	28	36	46	54	64	66.5	66.5	66.5	66.5	66.5	NP
YZ Miss.	96	m 12½	35ak	45	45	1 or ½	40	Table	18-I 16-J	28.6p	27	41	45	55.9	55.9	55.9	55.9	55.9	55.9	NP
Y Mo.	96	12½	35ak	45	45	NR	40	600	18-I 16-J	32	36	50	54	60	60	60	60	60	60	60
Y Mont.	e 96	13½	35k	60	60	1 or ½	40	NS	18	32	36	50	54	68	76.8	72	76.8	76.8	76.8	NP
Y Nebr.	96	12½	35ak	50	50	1 or ½	40	NR	18	32	36	50	54	64.6	64.6	64.6	64.6	64.6	64.6	NP
Y Nev.	96	NR	NR	NR	NR	NR	42	600	18	32	36	50	54	68	76.8	72	76.8	76.8	76.8	76.8
Y N. H.	96	13½	35u	45	45	NR	NS	600	22.4	36i	33.4	40j	52.8	66.4	66.4	66.4	66.4	66.4	66.4	66.4
N. J.	96	13½	35	45	50	1 or ½	40	800	22.4h	32	30	40	60	60	60	60	60	60	60	NP
VY N. M.	e 96	13½	40	65	65	1½	40	600	21.6	34.3	43.2	55.9	64.8	77.5	86.4	86.4	86.4	86.4	86.4	86.4
X N. Y.	96	13	35ak	50	50	1 or ½	48	800-P 640-S	22.4	36	44.8l	58.4l	65l	65	65	65	65	65	65	NP
Z N. C.	e 96	m 12½	35ak	48	48	1 or ½	48	600	19-In 17-Jn	36n	L 31.5n	L 46.2n	46.2n	58.8n	58.8n	58.8n	58.8n	58.8n	58.8n	NP
X N. D.	96	12½	40a	50	50	1 or ½	40	550	18	30	36	48	54	*61.5	*61.5	*61.5	*61.5	*61.5	*61.5	NP
X Ohio	96	m 12½	35ak	50	60	NR	NS	650	19	24p	38	50.5	57	69.5	*71.6	76	76	76	76	76

WEIGHT LIMITS

SELECTION & OPERATION

STATE	SIZE RESTRICTIONS							GROSS WEIGHT (LEGAL LIMITS)			(See NOTE) PRACTICAL GROSS WEIGHT LIMITS (In thousands of pounds) Below Limits Apply to Pneumatic Tires Unless Otherwise Specified									
	Width (Inches)	Height (Feet)	LENGTH: Single Unit	LENGTH: Tractor Semi-Trailer	LENGTH: Other Combinations	Number of Trailers (Semi-Trailer—½)	Minimum Tandem Axle Spacing	Pounds Per Inch of Tire Width	Per Axle (1000 lb.)	Tandem Axles 4 feet apart (1000 lb.)	4-Wheel Single Unit	6-Wheel Single Unit	4-Wh. Tractor 2-Wh. Semi-Tr.	4-Wh. Tractor 4-Wh. Semi-Tr.	6-Wh. Tractor 4-Wh. Semi-Tr.	4-Wh. Truck 4-Wh. Trailer	4-Wh. Truck 6-Wh. Trailer	6-Wh. Truck 4-Wh. Trailer	6-Wh. Truck 6-Wh. Trailer	Tractor, Semi-T. & Full Trailer Combs.
Okla. Y	96	13½	35k	50	50	1 or ½	40	650	18	32	36	50	54	60	60	60	60	68	60	NP
Ore. VY	96	12½	35	50	50	1 or ½	40	560	18	32	36	50	54	60	60	60	60	60	60	NP
Pa.	96	m 12½	35akr	50	50	1 or ½	36	800	22.4	36	H 33	H 47	H 50	H 60	H 60	H 62	H 62	H 62	H 62	NP
R. I.	102	12½	40	50	50	1 or ½	40	900	22.4	NS	36	44	50	50	50	72	80	80	88	NP
S. C. Y	96	12½	40a	50	50	1 or ½	40	NR	20-I 16-J	32	40	52	60	68.3	68.3	68.3	68.3	68.3	68.3	NP
S. D. Y	96	13	35ak	50	50	1 or ½	40	600	18-I 16-J	32	36	50	54	64.6	64.6	64.6	64.6	64.6	64.6	NP
Tenn. TY	96	12½	35k	45	45	1 or ½	40	NS	18	32	36	50	54	55.9	55.9	39.5	39.5	53.5	53.5	NP
Tex. Y	e 96	13½	35k	45	50	1 or ½	40	650-I 600-J	18-I 16-J	32	36	50	54	58.4	58.4	58.4	58.4	58.4	58.4	NP
Utah Y	96	14	45	60	60	2	40	NS	18-P 13.5-S	33	36	51	54	69	79.9	72	79.9	79.9	79.9	79.9
Vt	96	12½	50	50	50	1 or ½	40	600	NR	NR	30	40	50	60	60	50	60	50	60	NP
Va. VZ	96	m 12½	35k	50s	50s	1 or ½	40	650	18	32a	36a	50a	54a	56.8a	56.8a	56.8a	56.8a	56.8a	56.8a	NP
Wash. Y	96	12½	35g	60	60	1½	42	500	18	32	28	38	46	60	68	64	64	72	72	72
W. Va. Y	92	m 12½	35ak	45	45	1 or ½	40	NR	18	32	36	50	54	60.8	60.8	60.8	60.8	60.8	60.8	NP
Wis. VX	96d	m 12½	35k	50	50	1 or ½	40	800	18-C 12-D	32n	36C	48C	54C	66C	68C	68C	68C	68C	68C	NP
Wyo. Y	e 96	13½	40	60	60	2	40	NS	18	32	36	50	54	68	73.9	72	73.9	73.9	73.9	73.9

"—See explanation in Note at right.

Table—There is a table of axle weights based upon tire weights.

a—Vehicles over 35-ft length must have 3 axles, except buses in Fla. and S. C.

b—Plus weight on front axle of vehicle.

c—With power brakes.

d—104 in. for urban buses.

e—102-in. buses permitted subject to the following restrictions: Idaho, Mont. and Wyo.—on highways 20 ft wide; N. M.—on designated highways; Kan., Mass., Minn., N. C. and Texas in certain urban areas.

f—40-ft. 2-axle vehicles permitted on highways designated by Board of Highway Directors.

g—Director of Highways may allow 3-axle buses 40 ft on designated highways.

h—Vehicles registered after March 1, 1950.

i—Except on 3-axle single units.

j—47.5 if drive on both rear axles.

k—Buses permitted 40 ft; in Va. may be permitted by Highway Commission (see note a); 42 ft in Del.; 45 ft in Okla.; 45.2 in Ga.

l—New provision awaits Governor's approval.

m—Auto transporters allowed 13½ ft (also covered vans in Wash., baled hay or straw carriers in Md., hay, straw or small boat carriers in Mich.).

n—Including tolerance.

o—Graduated according to tire width.

p—Mich.—32,000 lb on one set of tandem axles in a combination on designated highways; Miss. —32,000 lb on designated highways; Ohio—31,500 lb on axles spaced over 4 ft but less than 8 ft apart; Va.—36,600 lb on certain highways.

q—120,000 lb for 6-Wh. Tractor, 4-Wh. Semi-T and 6-Wh. Full Trailer combination. See Note at right.

r—30-in. tolerance permitted auto transporter semi-trailers

s—Awaits Governor's approval. If approved, takes effect 30 days after legislature adjourns.

u—Buses with 3 axles permitted 40 ft on designated highways subject to 18,000-lb limit per axle.

NOTE ON "W" AND ASTERISK

Except when shown by asterisk or when followed by the letter "W," the above gross weight limits are the limits fixed by state law.

When shown by asterisk the above limits are computations made by the National Highway Users Conference to show what it considers to be practical gross weights where gross weights are arrived at by application of one of the formulae shown below under Footnote "X." In making these computations, wheel base was arrived at by deducting 8 ft. total over-hang front and rear from permissible overall length of unit or combination; tandem axles were considered to be a minimum permissible distance apart. When actual over-hang is less than 8 ft. additional gross weight will be possible.

When followed by the letter "W," the limits shown are maximum possible weights where gross weight is determined by permissible axle weight. These limits are possible only when each axle carries a gross weight equal to the permissible axle limit as shown.

C—Permissible on "Class A" highways.

D—Permissible on "Class B" highways.

G—Axles less than 10 ft apart limited to 16,000 lbs per axle.

H—Maximum shown. In practice, permissible gross weight depends on chassis weight.

I—Permissible on balloon tires.

J—Permissible on other than balloon tires.

L—2-axle buses permitted 23,625 lbs maximum net weight; 3-axle bus, 31,500 lbs.

NP—Not Permitted.

NR—No restriction.

NS—Not specified.

P—Pneumatic tires.

S—Solid tires.

T—With the following exceptions full trailers are permitted the same gross weight as other single units:—
Ala., Conn., Iowa, Ky—Full trailers prohibited.
Mass.—Trailer and load limited to 3,000 lbs.
Tenn.—Trailer and load limited to 3,500 lbs.

V—Solid tires prohibited.

W—See Note above.

X—States where gross weight is determined by formula. (See "Bridge Formulae" in next column and formula computations on next page.)

Y—States where gross weight is determined by table of axle spacing. (See "Axle Spacing" next column.)

Z—See "Restrictions Peculiar to Certain States" on next page.

BRIDGE FORMULAE

Colo.—800 (L plus 40).

Ga.—700 (L plus 40).

Md.—850 (L plus 40) any unit or combination, provided that gross weight of any vehicle or combination shall not exceed 65,000 lbs.

N. Y.—850 (L plus 40) any unit or combination having 3 or more axles, provided that gross weight shall not exceed 65,000 lbs.

N. D.—750 (L plus 40) any unit or combination.

Ohio—800 (L plus 47½).

Wisc.—1,000 (L plus 56) or gross weights graduated from 32,000 lbs if axle spacing is 6 ft to 68,000 lbs if spacing is 40 ft or more.

AXLE SPACING

Ala.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 64,650 lbs is spacing is 45 ft or more.

Ariz—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 76,800 lbs if spacing is 56 ft or more.

Calif.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 76,800 lbs if spacing is 56 ft or more.

Del.—Gross weights graduated from 36,000 lbs if axle spacing is 4 ft to 60,000 lbs if spacing is 39 feet or more.

D. C.—Gross weights graduated from 38,000 lbs if axle spacing is 4 ft to 65,400 lbs if spacing is 46 ft or more.

Fla.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 64,650 lbs if spacing is 45 ft.

Idaho—Gross weights graduated from 30,500 lbs if axle spacing is 3 ft to 76,800 lbs if spacing is 56 ft or more; separate table of axle spacing ranging from 37,800 to 79,000 lbs for haulers of wood, aggregates, cattle and farm products plus 5% tolerance on wheel and axle loads.

Iowa—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 65,478 lbs if spacing is 42 ft or more.

Kans.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 63,890 lbs if spacing is 44 ft.

Maine—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 50,000 lbs if spacing is 27 ft or more.

Mass.—(effective Dec. 1, 1955) Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 60,000 lbs if spacing is 35 ft or more.

Minn.—Gross weights graduated from 28,000 lbs if axle spacing is 4 ft to 66,500 lbs if spacing is 42 ft or more.

Miss.—Gross weights graduated from 28,650 lbs if axle spacing is 4 ft to 52,650 lbs if spacing is 30 ft or more; on designated highways from 32,000 lbs if spacing is 4 ft to 55,980 lbs if spacing is 34 ft or more.

Mo.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 60,010 lbs if spacing is 39 feet or more.

Mont.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 76,800 lbs if spacing is 57 feet or more.

Nebr.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 64,650 lbs if spacing is 45 ft or more.

Nev.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 76,800 lbs if spacing is 56 ft or more.

N. H.—Gross weights graduated up to 52,800 for 3-axle combinations and to 66,400 lbs for 4-axle combinations.

N. M.—Gross weights graduated from 34,320 lbs if axle spacing is 4 ft to 86,400 lbs if spacing is 56 ft.

Okla.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 60,000 lbs if spacing is 39 ft or more.

Ore.—Gross weights graduated from 32,200 lbs if axle spacing is 6 ft to 76,000 lbs if spacing is 55 ft or more, provided that no vehicle or combination shall exceed 60,000 lbs except under permit.

S. C.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 68,350 lbs if axle spacing is 50 ft or more.

S. D.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 64,650 lbs if axle spacing is 45 ft or more.

Tenn.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 55,980 lbs if axle spacing is 37 ft or more.

Texas—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 58,420 lbs if spacing is 41 ft.

Utah—Gross weights graduated from 33,000 lbs if axle spacing is 4 ft to 79,990 lbs if spacing is 54 ft or more.

Wash.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 72,000 lbs if axle spacing is 57 feet or more.

W. Va.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 73,280 lbs if spacing is 57 feet, provided that no vehicle or combination shall exceed 60,800 lbs except under permit.

Wyo.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 73,950 lbs if spacing is 57 feet.

State Size and Weight Limits Continued from Page 127

GROSS WEIGHTS COMPUTED BY FORMULAE

Computation of Gross Weights according to formulae, based on distance (in feet) between first and last axles, for states identified in State Size & Weight Limits chart by Footnote "X." It should be remembered that the figures in each column represent only a mathematical extension and are governed by Legal Overall Length Limits for single units and combinations of particular states. Also, that formula computations are superseded in some instances by specific limits given in the State Size & Weight Limits chart.

"L" (See Note Below)	North Dakota[1] 650 (L + 40)	North Dakota[2] 750 (L + 40)	Colorado 800 (L + 40)	Ohio 800 (L + 47½)	Maryland, New York 850 (L + 40)	Wisconsin 1000 (L + 28)
10 ft	32500 lb	37500 lb	lb	48000 lb	42500 lb	38000 lb
11	33150	38250	.....	46800	43350	37000
12	33800	39000	.....	47600	44200	38000
13	34450	39750	.....	48400	45050	39000
14	35100	40500	43200	49200	45900	40000
15	35750	41250	44000	50000	46750	41000
16	36400	42000	44800	50800	47600	42000
17	37050	42750	45600	51600	48450	43000
18	37700	43500	46400	52400	49300	44000
19	38350	44250	47200	53200	50150	45000
20	39000	45000	48000	54000	51000	46000
21	39650	45750	48800	54800	51850	47000
22	40300	46500	49600	55600	52700	48000
23	40950	47250	50400	56400	53550	49000
24	41600	48000	51200	57200	54400	50000
25	42250	48750	52000	58000	55250	51000
26	42900	49500	52800	58800	56100	52000
27	43550	50250	53600	59600	56950	53000
28	44200	51000	54400	60400	57800	54000
29	44850	51750	55200	61200	58650	55000
30	45500	52500	56000	62000	59500	56000
31	46150	53250	56800	62800	60350	57000
32	46800	54000	57600	63600	61200	58000
33	47450	54750	58400	64400	62050	59000
34	48100	55500	59200	65200	62900	60000
35	48750	56250	60000	66000	63750	61000
36	49400	57000	60800	66800	64600	62000
37	50050	57750	61600	67600	65450	63000
38	50700	58500	62400	68400	66300	64000
39	51350	59250	63200	69200	67150	65000
40	52000	60000	64000	70000	68000	66000
41	52650	60750	64800	70800	68850	67000
42	53300	61500	65600	71600	69700	68000
43	53950	62250	66400	72400	70550	69000
44	54600	63000	67200	73200	71400	70000
45	55250	63750	68000	74000	72250	71000
46	55900	64500	68800	74800	73100	.....
47	56550	65250	69600	75600	73950	.....
48	57200	66000	70400	76400	74800	.....
49	57850	66750	71200	77200	75650	.....
50	58500	67500	72000	78000	76500	.....
51	59150	68250	72800	.....	77350	.....
52	59800	69000	73600	.....	78200	.....
53	60450	69750	74400	.....	79050	.....
54	61100	70500	75200	.....	79900	.....

"L"—Distance in feet between first and last axles of group of axles considered. [1]—Vehicles with axles spaced 18 feet or less. [2]—Vehicles with axles over 18 feet apart.

RESTRICTIONS PECULIAR TO CERTAIN STATES

ILL.—Limits shown are permissible on designated highways; otherwise limited to 16,000 lb on any one axle. Two-axle truck limited to 32,000 lb under registration law.

KY.—Limits shown are permissible on designated highways; otherwise limits are: height 11½ ft; length—truck 26½ ft; length—semi-trailer combination 30 ft; gross weight 18,000 lb.

MISS.—Gross weight limits shown are permissible on designated highways; on other highways, graduated from 28,650 lb if axle spacing is 4 ft to 52,650 lb if spacing is 30 ft or more.

N. C.—Gross weight limit on most secondary highways 16,000 lb for two axles and 24,000 lb for 3 axles.

Corrected to March 15, 1956, Copyrighted 1956

NATIONAL HIGHWAY USERS CONFERENCE, INC., National Press Bldg., Washington, D. C.

Safety Equipment

Required & Permitted on Trucks, Truck-Tractors, Trailers & Buses

As Specified in I.C.C. Safety Rules & Regulations, State Motor Vehicle Laws & Official Rulings . . . and Compiled by National Highway Users Conference

TABULATION OF SAFETY REQUIREMENTS ON PAGES 130 & 131

EXPLANATION OF I.C.C. REFERENCES

‡—The I.C.C. Motor Carrier Safety Regulations apply to "Automotive Safety Equipment" on vehicles operated by common and contract carriers ("for hire" carriers) of persons or property and by private carriers of property, when operated regularly in interstate or foreign commerce, except when operated wholly within a municipality, between contiguous municipalities, or within a zone adjacent to and commercially a part of any such municipality or municipalities. When vehicles of common, contract or private carriers are transporting explosives or other dangerous articles the last-mentioned exception does not apply.

†—Requires "a device or other means of preventing or removing ice or frost" from windshield.

*—I.C.C. neither approves nor disapproves any individual required item. Its Motor Carrier Safety Regulations, however, set forth certain constructional details or performance standards to which certain items must conform. Reference should me made to the Motor Carrier Safety Rules for complete details.

COLOR AND REQUIREMENT SYMBOLS

A—Amber
G—Green
R—Red
N—No
NP—Not Permitted
NR—Not Required
NS—Not Specified
NSM—Not Specifically Mentioned
Y—Yes
Ye—Yellow
W—White
/—When used between two letters or numbers means "or."
Example—2/4 means "2 or 4."

GENERAL FOOTNOTES

a—Prohibits red light visible from in front of vehicle.
b—Prohibits red or green light visible from in front of vehicle.
c—Tail lamp or separate lamp shall illuminate rear license plate with white light.
d—Must be located and constructed so as to illuminate rear license plate with white light.
e—May be incorporated in tail lamp.
f—Semaphores required on school buses.
g—One or both may be incorporated in tail lamp or lamps.
h—Number plate must be illuminated with white light.
i—Also two yellow reflectors on front of truck 70 in. or more in width and bus over 7 passengers.
j—Also two yellow or amber reflectors on front of vehicle.
k—One may be part of tail lamp.
m—Reflectors may be substituted.
n—Reflectors may be used when vehicle has acetylene lamps.
p—White, green or amber. Where green originally used, may be continued till replacements are necessary.
r—Yellow or orange flags required.
s—On vehicles over 45 feet long, rear clearance and marker lamps shall be in combination.
t—One green marker lamp every 10 feet on combinations over 33 feet long.
u—Vehicles manufactured after December 31, 1949, shall have double wipers.
v—2 on all new vehicles other than truck tractors after July 1, 1956 (January 1, 1956 in Indiana, Montana, Utah and Wyoming) Oklahoma August 26, 1955. District of Columbia September 15, 1955.
w—New vehicles.
x—Or rear clearance lights required by I.C.C.
y—Trailer and semi-trailers shall have one lamp on front visible from both sides.
z—Clearance and marker lamps may be in combination.
aa—Every vehicle 72 in., or more wide must have 2 amber or clear front, and 2 amber, clear or red rear reflectors. Clearance lamps may be substituted. Reflectors must be approved. Clearance lamps need not be approved.
bb—Windshield washers required on vehicles manufactured after January 1, 1956.
cc—Vehicles manufactured after January 1, 1943, shall have double wipers.
dd—On *interstate* buses—green lights adjacent to destination sign or near upper corners;
On *intrastate* buses—purple lights in same locations.
ee—Double wipers required on all school buses.
ff—Two yellow stop lamps required on all buses.
ii—Clearance and marker lamps may be in combination. When in combination there must be one such lamp on each side, midway of vehicle.
kk—Permits tinted other than red.
xx—Fog lamps are included within the term "Auxiliary Driving Lamps" and are treated accordingly.
zz—Plus 1 auxiliary passing lamp.

Data Revised to March 10, 1956

SAFETY EQUIPMENT REQUIREMENTS (Cont.)

REFERENCES AND SYMBOLS EXPLAINED ON PRECEDING PAGE

SAFETY EQUIPMENT TO BE MOUNTED ON VEHICLES

Jurisdictional Control Over Equipment	HEAD LAMPS			TAIL LAMPS			STOP LAMPS			REAR REFLECTORS			CLEARANCE LAMPS				SIDEMARKER LAMPS				IDENTIFICATION LAMPS				DIRECTION SIGNALS				SIDE REFLECTORS			
														Color				Color				Color				Color				Color		
	Number	Color	Must Be Approved	Number	Color	Must Be Approved	Number	Color	Must Be Approved	Number	Color	Must Be Approved	Number	Front	Rear	Must Be Approved	Number	Front	Rear	Must Be Approved	Number (Sets)	Front	Rear	Must Be Approved	Number	Front	Rear	Must Be Approved	Number	Front	Rear	Must Be Approved
I.C.C.	2	NS	•	2	R	•	2/1	R/ye	•	2	R	•	4z	A	R	•	4z	A	R	•	NR				NR				2/4	A	R	•
Ala.	2	W/A	Y	1d	R	Y	1	R/ye	Y	2	R	N	4	W	R	N	NR				NR				NS	NS	R	Y	2	NS	R	N
Ariz.	2	W/A	Y	1c	R	Y	1	R/ye	Y	2	R	Y	4	A	R	Y	2/4	A	R	Y	NR				4	A	R	Y	2	A	R	Y
Ark.	2	NSb	Y	1c	R	Y	1	R/ye	Y	1e	R	Y	2	G	R	Y	4m	G	R	Y	3	A/G	R	Y	4	Ye	Ye/R	Y	4	G	R	Y
Calif.	2	W/A	Y	1c	R	Y	1e	A/R	Y	1/2k	R	Y	4	A	A/R	Y	NR				NR				4	A/W	A/R	Y	NR			
Colo.	2	W/A	Y	1c	R	Y	1e	R	Y	2k	R	Y	4	A	R	Y	4	A	R	Y	NR				4	Ye	R	Y	4	A	R	Y
Conn.	2	W/A/Ye	Y	1c	R	Y	1f	Rff	Y	1/2k	A/RW	Y	4aa	A/W	A/RW	Y	NR				2	dd	NR	N	4	Ye/A	Ye/A Rw	Y	4	A/W	W/RA	Y
Del.	2	NSa	N	1cv	R	N	1	R/A	N	2we	R	N	4z	A	R	N	4z	A	R	N	NR				NS	W/A	R/A	N	4	A	R	N
D. of C.	2	NSa	Y	1cv	R	Y	1e	R/ye	Y	2	R	Y	4z	A	R	Y	4z	A	R	Y	NR				4	W/A	R/A	Y	4	A	R	Y
Fla.	2	NSa	N	1c	R	N	1e	R/ye	Y	2	R	N	4z	A	R	N	4z	A	R	N	NR				NS		R/Ye	Y	4	A	R	N
Ga.	2	NS	N	1c	R	N	1	A/R	N	2e	R	Y	4z	A	R	Y	4z	A	R	Y	NR				NS	NS	R		4	A	R	N
Idaho	2	NSa	Y	1cv	R	Y	1e	A/R	Y	2g	R	Y	4z	A	R	Y	4z	A	R	Y	NR				NS	W/A	R/A	Y	4	A	R	Y
Ill.	2	Ye/AW	Y	1	R	Y	1	Ye/R	Y	2j	R	Y	2n	Ye/A		Y	NS	NS	NS	N	3xh		R	N	NS	W/A	R/A	Y	4	A	R	Y
Ind.	2	NSa	N	1cv	R	N	1f	R/A	N	2	R	N	4z	A	R	N	4z	A	R	N	NR				NS	W/A	R/A	N	4	A	R	N
Iowa	2	Wkk	Y	1c	R	Y	1	Ye/R	Y	2k	R	Y	4	Ye/W/A	R	Y	4	Ye/AW	R	Y	3	Ye/AW	R	Y	4	W/A/Ye	R/A/Ye	Y	2/4	p	R	Y
Kan.	2	W	Y	1c	R	Y	1	Ye/R	Y	1e	R	Y	2	A	R	Y	4m	A	R	Y	3	A	R	Y	NR	Ye	Ye/R	Y	4	A	R	N
Ky.	2	Wkk	N	1n	R	N	1	Ye/R	N	1e			2/4	G/W	R	N	NR				NR				NS	NS	Ye/R	N	NR			
La.	2	NSb	Y	1d	R	Y	1	R	Y	NR			2	A	R	Y	4	A	NS	Y	NR				4	A	R	Y	NR			
Me.	2	W	Y	1c	R	Y	1	R/A	Y	1e	R	Y	2/3m	A/GW	R	Y	NR				NR				NS			Y	NR			
Md.	2	Wkk	Y	1c	R	Y	1	A/R	Y	1e	R	Y	4m	A	R	Y	4mz	A	R	Y	NR				4	A	A/R	Y	NR			
Mass.	2	Ye/AW	Y	1	R	Y	NR			1	R	N	2	G	R	N	NR				NR				NR				NR			
Mich.	2	W	N	1c	R	N	1	A/R	N	2	R	N	4z	A	R	N	4z	A	R	N	NR				4	NS	R/A	N	2/4	A	R	N
Minn.	2	W	Y	1c	R	Y	1	Ye/R	Y	1e	R	Y	4ii	A/W	R	Y	4ii	A/W	R	Y	NR				4	Ye	Ye/R	Y	NR			
Miss.	2	W	Y	1c	R	Y	1	A/R	Y	2	R	Y	4	A	R	Y	4	A	R	Y	NR				4	A	A/R	Y	4	G	R	Y
Mo.	2	W	Y	1c	R	Y	1	NS	Y	2/4	R	Y	4	A	R	Y	4	A	R	N	NR				NS	NS	R	Y	2	A	R	N
Mont.	2	W	N	1cv	R	N	1	R/A	N	2e	R	N	4z	A	R	N	4z	A	R	N	NR				NS	W/A	R/A	N	4	A	R	N
Nebr.	2	NSb	Y	1	R	Y	1	R	Y	1	R	N	2m	A/G	R	Y	NR				NR				NS	NS	R	Y	NR			
Nev.	2	Wkk	N	1	R	N	1e	Ye/RA	Y	2	R	N	4	A	R	N	4	A	R	N	NR				NR				2	A	R	N
N. H.	2	NSa	Y	1d	R	Y	1	NS	Y	2	R	Y	4e	A	R	Y	2s	A	R	Y	NR				NS	NS	NS	Y	4	A	R	Y
N. J.	2	Ye/AW	Y	2c	R	Y	2	R	Y	1/2k	R	Y	NR				NR				NR				4	Ye/A	Ye/A	Y	NR			
N. M.	2	NSa	Y	2c	R	Y	1e	Ye/R, A	Y	2	R	Y	4z	A	R	Y	4z	A	R	Y	NR				4	A	R/A/Ye	Y	4	A	R	Y
N. Y.	2	Ye/W	Y	1h	R	Y	1	R	Y	1/2ik	R	Y	NR				NR				NR				4	W/A	R/A	Y	NR			
N. C.	2	NSb	Y	1d	R	Y	1	A/R	Y	2	R	Y	4	A	R	Y	4	A	R	Y	NR				4	NS	R/A/Ye	Y	4	A	R	Y
N. D.	2	NSb	Y	1	R	Y	1	R	Y	NR			2	A	R	Y	NR				NR				NS	NS	R	Y	NR			
Ohio	2	W	Y	1c	R	N	1	Ye/R	Y	2	R	N	4	A	R	N	4	A	R	N	NR				NS			Y	4	A	R	N
Okla.	2	W	Y	2cv	R	Y	1e	R/AYe	Y	2e	R	Y	4	A	R	Y	4	A	R	Y	NR				NS	Ye/A	A/R/Ye	Y	4	A	R	Y
Ore.	2	NSb	Y	1c	R	Y	1	Ye/R	Y	2k	R	Y	4	A	R	Y	4	A	R	Y	NR				2/4	A	R	Y	2/4	A	R	Y
Penna.	2	NSa	Y	1c	R	Y	1	Ye/R	Y	1	R	Y	2m	A	R	N	4m	A	R	N	3	A	R	N	2/4	Ye/A	Ye/R	Y	4	A	R	Y
R. I.	2	A/W	Y	1c	R	Y	1	Ye/R	Y	2	R	Y	4	A	R	Y	4	A	R	Y	NR				4	Ye/A	Ye/A	Y	4	A	R	Y
S. C.	2	W	N	1c	R	N	1	Ye/R	Y	1e	R	N	4z	A	R	N	4z	A	R	N	NR				4	A	Ye/R	Y	2/4	A	R	Y
S. D.	2	NSa	Y	1c	R	Y	1	Ye/R	Y	1e	R	Y	2	W	R	Y	NR				3	G	R	Y	4	A	Ye/R	Y	NR			
Tenn.	2	NSa	Y	1	R	Y	1	A/R	Y	2	R	N	4	A	R	Y	4	A	R	Y	NR				NS	NS	NS	Y	4	A	R	Y
Tex.	2	W	Y	1d	R	Y	1	Ye/R	Y	2	R	Y	4z	A	R	Y	4z	A	R	Y	NR				4	A	R/A/Ye	Y	2/4	A	R	Y
Utah	2	NSa	Y	1cv	R	Y	1e	R/A	Y	2g	R	Y	4	A	R	N	4	A	R	N	NR				4	W/A	R/A	Y	4	A	R	Y
Vt.	2	W/A	Y	1d	R	Y	NR			NR			1	G	R	Y	NR				NR				NR				NR			
Va.	2	W	Y	1c	R	Y	1	R	Y	NR			4	A	R	Y	NR				NR				4	A	A/R	Y	NR			
Wash.	2	NSa	Y	2c	R	Y	1e	R/A	Y	2e	R	Y	4z	A	R	Y	4z	A	R	Y	NR				4	W/A	R/A	Y	4	A	R	Y
W. Va.	2	NSa	Y	1c	R	Y	1e	R/Ye	Y	2g	R	Y	2/4z	A	R	Y	2/4z	A	R	N	NR				NS		R/A/Ye	Y	4	A	R	Y
Wisc.	2	W	N	1m	A/R	N	1m	A/R	N	1	R	N	2/4	A	R	N	NR				NR				4	W/A	R/A	Y	4	A	R	N
Wyo.	2	NSa	Y	1cv	R	Y	1	R/A	Y	2e	R	Y	4z	A	R	Y	4z	A	R	Y	NR				NS	W/A	R/A	Y	4	A	R	Y

SOURCE: NATIONAL HIGHWAY USERS CONFERENCE

REQUIRED → | ← PERMITTED →

TO BE CARRIED IN VEHICLES | TO BE MOUNTED

REAR VIEW MIRROR		WINDSHIELD WIPERS		DEFROSTERS		FIRE EXTINGUISHERS		LIQUID BURNING FLARES		ELECTRIC FLARES			REFLECTOR FLARES			FUSEES			RED CLOTH FLAGS		LIGHT OR FLAG ON PROJECTING LOAD		AUXILIARY DRIVING LAMPS			FOG LAMPS			SPOT LAMPS			Driving Lights Permitted Lit At One Time	Jurisdictional Control Over Equipment
Number	Must Be Approved	Number	Must Be Approved	Number	Must Be Approved	Number	Must Be Approved	Number	Must Be Approved	Number	Color	Must Be Approved	Number	Color	Must Be Approved	Number	Color	Burning Time (Min.)	Number	Size (Square)	Light or Lantern	Flag Size (Sq.)	Number	Color	Must Be Approved	Number	Color	Must Be Approved	Number	Color	Must Be Approved		
2	•	2	•	†	•	1/2	•	3	•	3	R	•	3	R	•	3	NS	15	2	12	1	12	NSM	.....	..	NSM	.....	..	NSM	.....	..	4	I.C.C.
1	N	1	N	NR	..	NR	...	3	Y	3	R	Y	3	R	Y	3	R	NS	2	12	1	12	2	NS	Y	2	NS	Y	1	NS	Y	NS	Ala.
1	N	1	N	NR	...	1	Y	3	N	3	R	N	3	R	Y	3	R	15	2	12	1	12	2	NSa	Y	2	NS	Y	1	NSa	Y	4	Ariz.
1	N	1	N	NR	..	NR	...	3	Y	3	R	Y	NS	M	...	NR	.....	.....	NR	...	1	16	3	NSa	Y	XX	.....	..	1	NSa	Y	4	Ark.
1	N	1u	N	1†	N	1	Y	2	N	2	R	N	2	R	Y	NR	.....	.....	NR	...	2	16	2	A/W	Y	2	A/W	Y	2	NS	Y	4	Calif.
1	N	1	N	1†	N	1	..	3	Y	3	R	Y	3	R	Y	3	R	20	3	NS	1	16	3	NS	Y	XX	.....	..	1	NS	Y	4	Colo.
1	N	1	N	1†	N	1	N	3n	Y	3n	R	Y	3n	R	Y	3n	R	NS	NR	...	1	NS	2	A/W	N	XX	.....	..	1	A/W	N	4	Conn.
1	N	1	N	NR	..	NR	..	NR	..	NR	...	...	NR	...	...	NR	.....	.....	NR	...	1	12	1zz	NSa	N	2	NSa	N	2	NSa	N	4	Del.
½	N	2	N	NR	..	1	N	NR	..	NR	...	...	NR	...	...	NR	.....	.....	NR	...	1	12	1zz	A/W	Y	2	A/W	Y	2	A/W	N	4	D. of C.
1	N	1	N	1†	N	1	Y	3	Y	3	R	Y	3	R	..	3	R	15	2	12	1	16	3	NSa	N	NSM	.....	..	1	NSa	N	NS	Fla.
1	N	1	N	1†	N	1	Y	3	N	3	R	N	3	R	N	3	R	15	2	12	1	12	2	NS	N	2	NS	N	1	NSa	N	NS	Ga.
1	N	2	N	1†	N	1	Y	3	Y	3	R	Y	3	R	Y	3	R	NS	2	12	1	16	1zz	NSa	Y	2	NSa	Y	2	NSa	Y	4	Idaho
1	N	1	N	NR	..	2	N	3	Y	3	R	Y	3	R	Y	NR	.....	.....	3	NS	1	16	3	NS	N	XX	.....	..	1	NS	N	4	Ill.
1	N	1	N	NR	..	NR	..	3	Y	3	R	Y	3	R	Y	3	R	15	2	12	1	12	1zz	NS	N	2	.....	..	2	NSa	N	4	Ind.
1	N	1	N	NR	..	2	Y	3	Y	3	R	Y	3	R	Y	1	NS	NS	3	NS	1	16	3	NSa	Y	XX	.....	..	1	NSa	Y	4	Iowa
1	Y	1	N	1†	N	2	N	3	Y	3	R	Y	3	R	Y	3	R	15	3	15	2	12	3	A/W	Y	XX	.....	..	1	W	N	4	Kan.
1	N	1	N	NR	..	1	Y	3	Y	3	R	Y	3	R	Y	3	R	15	NR	...	1	NS	NSM	.....	..	NSM	.....	..	NSM	.....	..	NS	Ky.
1	N	1	..	NR	..	1	N	3	Y	3	R	Y	3	R	Y	NR	.....	.....	2	12	1	12	2	NSa	Y	XX	.....	..	Prohibited			NS	La.
1	N	1	N	1†	N	1	Y	3	N	3	R	N	3	R	N	NR	.....	.....	2	12	1	NS	2	A/W	Y	XX	.....	..	1	NS	N	NS	Me.
1	N	1	N	NR	..	2	Y	3	Y	3	R	Y	3	R	Y	NR	.....	.....	NR	...	1	16	3	NSa	Y	XX	.....	..	1	NSa	N	4	Md.
1	N	1	N	NR	..	1	Y	3	Y	3	R	Y	3	R	Y	NR	.....	.....	NR	...	1	12	NSM	.....	..	NSM	.....	..	1	NSa	Y	NS	Mass.
1	N	1bb	N	1	N	1	N	3	Y	3	R	Y	3	R	Y	3	R	15	2	12	1	12	2	A/W	N	XX	.....	..	2	A/W	N	NS	Mich.
1	N	1	N	1†	N	1	Y	3	Y	3	R	Y	3	R	Y	NR	.....	.....	3r	24	1	12	4	A/W	Y	XX	.....	..	2	W	Y	4	Minn.
1	N	1	N	1†	N	1	Y	3	Y	3	R	Y	3	R	Y	3	R	15	NR	...	1	16	2	NS	Y	XX	.....	..	1	NS	N	4	Miss.
1	N	1	N	1†	N	1	Y	3	Y	3	R	Y	3	R	Y	3	R	15	2	NS	1	16	3	Ye/AW	N	XX	.....	..	1	Ye/AW	N	4	Mo.
1	N	1	N	1†	N	1	Y	3	N	3	R	Y	3	R	N	3	R	15	2	12	1	12	1zz	NSa	N	2	.....	..	2	NS	N	4	Mont.
1	N	1	N	NR	..	1	N	3	Y	NR	...	...	3	R	Y	NR	.....	.....	2	NS	1	16	2	NSb	Y	NSM	.....	..	1	NSb	Y	NS	Nebr.
1	N	1	N	1†	N	1	Y	3	Y	3	R	Y	NSM	..	...	3	R	15	2	12	1	12	3	NS	N	XX	.....	..	1	NS	N	4	Nev.
1	N	1	N	1	N	1	Y	2	Y	2	R	Y	2	R	Y	2	R	20	NR	...	1	12	3	NS	Y	2	A	Y	2	NS	Y	4	N. H.
1	N	1	N	NR	..	1	Y	3	Y	3	R	Y	3	R	Y	NR	.....	.....	NR	...	1	12	2	A/W	Y	XX	.....	..	1	NSa	Y	4	N. J.
1	N	1	N	1†	N	1	Y	3	Y	3	R	Y	3	R	Y	3	R	15	2	12	1	12	2	NSa	Y	2	NSa	Y	2	NSa	Y	4	N. M.
1	N	1	N	1†	N	1	Y	2	Y	2	R	Y	2	R	Y	NR	.....	.....	NR	...	1	24	NSM	.....	..	NSM	.....	..	NSM	.....	..	NS	N. Y.
1	N	1	Y	NR	..	2	Y	2	N	2	R	N	NP	...	...	2	R	NS	2	12	1	12	2	NS	N	XX	.....	..	2	NS	Y	NS	N. C.
1	N	1	N	NR	..	1	N	3	Y	3	R	Y	3	R	Y	3	R	15	3	12	1	12	1	NS	Y	2	NS	Y	2	NS	Y	2	N. D.
1	N	1	N	NR	..	2	Y	3	Y	3	R	Y	NP	...	...	3	R	15	2	12	1	16	3	W	N	NS	Ye/AW	N	1	W	N	5	Ohio
1	N	1	N	1†	N	1	Y	3	Y	3	R	Y	3	R	Y	3	R	15	3	12	1	12	2	NSa	Y	XX	.....	..	2	NSa	Y	4	Okla.
1	N	1	N	NR	..	1	Y	3	N	3	R	N	3	R	Y	NR	.....	.....	3	12	1	12	3	NSa	Y	XX	.....	..	1	NS	Y	4	Ore.
1	N	1	N	NR	..	1	N	3	Y	3	R	Y	3	R	Y	NR	.....	.....	3	12	1	12	3	W	Y	2	A/W	Y	1	NS	N	4	Penna.
1	N	1ee	N	1†	N	1	Y	3	Y	3	R	Y	3	R	Y	3	R	15	2	12	1	12	2	A/W	Y	XX	.....	..	2	NS	Y	4	R. I.
1	N	1	N	1†	N	2	Y	3	Y	3	R	Y	3	R	Y	3	R	15	3	12	1	12	2	NS	Y	2	NS	Y	1	NS	N	4	S. C.
1	N	NR	..	1†	N	1	N	3	Y	3	R	Y	3	R	Y	NR	.....	.....	NR	...	1	12	3	NS	Y	XX	.....	..	1	NS	N	NS	S. D.
1	N	1	N	1†	N	1	Y	3	Y	3	R	Y	3	R	Y	3	R	15	2	12	1	12	2	NS	N	XX	.....	..	2	NSa	N	4	Tenn.
1	N	NR	..	1†	N	2	Y	3	Y	3	R	Y	3	R	Y	3	R	15	2	12	1	12	3	NS	Y	XX	.....	..	1	NS	Y	4	Tex.
1	N	1	N	1†	N	1	Y	3	Y	3	R	Y	3	R	Y	3	R	15	2	12	1	12	2	NSa	Y	2	NSa	Y	2	NSa	N	4	Utah
1	N	1	N	NR	..	1	Y	3	Y	3	R	Y	3	R	Y	NR	.....	.....	2	12	1	12	2	NS	Y	2	NS	Y	2	NS	Y	NS	Vt.
1	Y	1cc	Y	NR	..	1	Y	3	Y	3	R	Y	3	R	Y	NR	.....	.....	2	12	1	12	2	NS	Y	2	A/W	Y	2	W	Y	4	Va.
1	N	2	N	NR	..	1	Y	3	Y	3	R	Y	3	R	Y	3	R	15	2	12	1	12	1zz	NSa	Y	.....	NSa	Y	2	NSa	Y	4	Wash.
1	N	1	N	1†	N	1	Y	3	Y	3	R	Y	3	R	Y	3	R	15	2	12	1	12	2	NSa	Y	2	NSa	Y	1	NS	Y	4	W. Va.
1	N	1	N	NR	..	1	Y	3	Y	3	R	Y	NP	...	...	3	R	20	NR	...	1	12	2	NSa	Y	NS	NSa	Y	2	W	Y	4	Wisc.
1	N	1	N	1†	N	1	Y	3	Y	3	R	Y	3	R	Y	3	R	15	2	12	1	12	1zz	NSa	Y	2	NSa	..	2	NSa	Y	4	Wyo

TRANSMISSION RATIOS

TRANSMISSIONS MAKE AND MODEL	No. of Forward Speeds	Direct Drive on	GEAR RATIOS							Power Take-off, Opening
			Low	Second	Third	Fourth	Fifth	Reverse	High Reverse	
AUTOCAR										
BH-31 Aux.	3	2	1.33	1.00	.85					R
BH-21 Aux.	2	2	1.47	1.00						R
BROWN-LIPE (1)										
*5331	3	3	3.80	1.91	1.00			4.24		
5541	4	4	4.57	2.42	1.73	1.00		4.07		
*3152	5	5	7.55	4.18	2.45	1.45	1.00	7.36		R-L
*3153	5	4	6.00	3.32	1.94	1.00	.793	5.84		R-L
6241	4	4	6.83	3.19	1.70	1.00		7.53		R-L
6241-A	4	4	7.15	3.44	1.83	1.00		8.13		R-L
6241-B	4	4	4.32	2.57	1.57	1.00		4.90		R-L
6241-C	4	4	3.90	2.42	1.50	1.00		4.43		R-L
6440	4	3	3.90	1.88	1.00	.754		4.43		R-L
8041	4	4	6.25	3.47	1.75	1.00		6.39		R-L
8045	4	4	6.25	3.47	1.75	1.00		6.39		R-L
8241, 8245	4	4	5.19	2.88	1.72	1.00		5.31		R-L
8440, 8445	4	3	3.67	1.85	1.00	.77		3.75		R-L
8440-A, 8445-A	4	3	3.67	1.85	1.00	.67		3.75		R-L
*4652	5	5	7.40	4.00	2.47	1.46	1.00	7.84		R-L
*4752	5	5	6.10	3.30	1.81	1.35	1.00	6.46		R-L
*4753	5	4	6.10	3.30	1.81	1.00	.77	6.46		R-L
*4753-A	5	4	6.10	3.30	1.81	1.00	.88	6.46		R-L
*4852	5	5	5.06	2.93	1.79	1.34	1.00	5.37		R-L
*4853	5	4	5.06	2.93	1.69	1.00	.78	5.37		R-L
*6352	5	5	7.31	4.09	2.41	1.44	1.00	7.33		R-L
*6452	5	5	6.07	3.40	1.79	1.34	1.00	6.09		R-L
*6453	5	4	6.07	3.40	1.79	1.00	.79	6.09		R-L
*6453-A	5	4	6.07	3.40	1.79	1.00	.83	6.09		R-L
*6852	5	5	5.06	3.05	1.78	1.33	1.00	5.10		R-L
*6853	5	4	5.06	3.05	1.78	1.00	.665	5.10		R-L
8051, 8055	5	4	6.25	3.47	1.75	1.00	.67	6.39		R-L
8051-A, 8055-A	5	4	6.25	3.47	1.75	1.00	.83	6.39		R-L
8251, 8255	5	4	5.19	2.88	1.72	1.00	.69	5.31		R-L
8251-A, 8255-A	5	4	5.19	2.88	1.72	1.00	.795	5.31		R-L
Auxiliaries										
5831	3	2	2.00	1.00	.73					R-L
5831-A	3	2	1.54	1.00	.73					R-L
5831-B	3	2	2.35	1.00	.85					R-L
5831-C	3	2	1.27	1.00	.85					R-L
6041	4	3	2.14	1.24	1.00	.860				No
6041-A	4	3	2.14	1.24	1.00	.75				No
6231	3	2	2.14	1.00	.69					R-L
6231-A	3	2	1.24	1.00	.86					R-L
6231-B	3	2	2.14	1.00	.86					R-L
6231-C	3	2	1.24	1.00	.69					R-L
6231-D	3	2	2.14	1.00	.74					R-L
6231-E	3	2	1.24	1.00	.74					R-L
6231-F	3	2	1.50	1.00	.86					R-L
8031-A, 8035-A	3	2	2.59	1.00	.84					R-L
8031-B, 8035-B	3	2	2.59	1.00	.79					R-L
8031-C, 8035-C	3	2	2.59	1.00	.75					R-L
8031-D, 8035-D	3	2	2.24	1.00	.84					R-L
8031-E, 8035-E	3	2	2.24	1.00	.79					R-L
8031-F, 8035-F	3	2	2.24	1.00	.75					R-L
8031-G, 8035-G	3	2	1.29	1.00	.84					R-L
8031-H, 8035-H	3	2	1.29	1.00	.79					R-L
8031-J, 8035-J	3	2	1.29	1.00	.75					R-L
8031-K, 8035-K	3	3	2.59	1.34	1.00					R-L
8031-L, 8035-L	3	3	2.24	1.34	1.00					R-L
8341-A	3	3	2.40	1.29	1.00					No
CHEVROLET										
3-Speed	3	3	2.94	1.68	1.00			2.94		No
3-Speed H. D.	3	3	3.17	1.75	1.00			3.76		No
4-Speed	4	4	7.06	3.58	1.71	1.00		6.78		L
Hyd. 31-3200	4	4	3.82	2.63	1.45	1.00		4.30		No
Hyd. 34-35-36-37-3800	4	4	4.71	3.03	1.56	1.00		6.11		No
5-Speed	5	5	7.41	4.05	2.40	1.48	1.00	7.95		R-L
5-Speed H D	5	5	7.55	4.17	2.45	1.45	1.00	8.84		R-L
6-Speed (4)	6	6	5.29	3.81	2.69	1.94	1.39	6.04		R-L
CLARK										
142-T	3		3.46	1.71	1.00			4.25		R
186-F	4		6.35	3.31	2.40	1.00		7.54		R-L
187-F	4		5.00	2.61	1.89	1.00		5.94		R-L
204-V	5		7.58	4.38	3.05	1.72	1.00	7.61		R-L
204-VO	5		6.06	3.50	1.80	1.00	.799	6.00		R-L
207-VO	5		6.06	3.50	1.80	1.00	.86	6.00		R-L
208-V	6		7.58	4.38	3.05	1.48	1.00	7.61		L

TRANSMISSIONS MAKE AND MODEL	No. of Forward Speeds	Direct Drive on	GEAR RATIOS							Power Take-off, Opening
			Low	Second	Third	Fourth	Fifth	Reverse	High Reverse	
CLARK—cont.										
231-F	4		6.35	3.90	1.97	1.00		7.41		R-L
233-F	4		6.35	3.38	1.73	1.00		7.41		R-L
271-T	3		4.06	1.93	1.04			4.50		No
290-V	5		7.88	4.41	2.63	1.48	1.00	7.88		R-L
290-VO	5		7.00	3.93	1.90	1.00	.786	7.00		R-L
291-V	5		7.00	3.93	2.34	1.54	1.00	7.00		R-L
330-F	4		4.88	3.09	1.73	1.00		4.06		No
334-F	4		4.35	2.75	1.71	1.00		3.62		No
333-V	5		5.22	3.30	2.05	1.42	.98	4.45		No
185-F	4	4	6.35	3.31	1.73	1.00		7.54		R-L
200-V	5	5	7.58	4.38	2.40	1.48	1.00	6.11		R-L
200-VO	5	4	6.06	3.50	1.91	1.00	.799	4.87		R-L
205-V	5	5	7.58	4.38	2.40	1.48	1.00	7.61		R-L
205-VO	5	4	6.06	3.50	1.91	1.00	.799	6.00		R-L
230-F	4	4	5.00	3.07	1.71	1.00		5.83		R-L
326-V	5	5	6.05	4.34	2.80	1.67	1.00	8.05		R-L
326-VO	5	4	7.08	3.82	1.85	1.00	.788	7.08		R-L
265-V-1	5	5	7.88	4.38	2.40	1.48	1.00	7.51		R-L
267-V-1	5	5	6.06	3.50	1.80	1.18	1.00	6.00		R-L
267-VO-1	5	4	6.06	3.50	1.80	1.00	0.86	6.00		R-L
333F	4	4	4.88	3.09	1.73	1.00		4.06		No
264V	5	5	7.58	4.38	3.05	1.72	1.00	7.51		R-L
264VO	5	4	6.06	3.50	1.80	1.00	.799	6.00		R-L
202V	5	5	7.58	4.38	3.05	1.72	1.00	6.11		R-L
202VO	5	4	6.06	3.50	1.80	1.00	.799	4.87		R-L
292VO	5	4	7.00	3.93	1.90	1.00	.86	7.00		R-L
293V	5	5	7.08	4.88	2.84	1.68	1.00	7.88		R-L
250-V	5	5	7.06	4.06	2.37	1.47	1.00	7.02		R-L
251-VO	5	4	6.06	3.50	1.80	1.00	.799	6.00		R-L
DODGE										
Own PC	3	3	2.5	1.68	1.00			3.21		No
NP-89905	3	3	3.3	1.78	1.00			4.3		No
NP-420	4	4	6.68	3.10	1.69	1.00		8.25		R
NP-540	5	5	7.41	4.05	2.40	1.48	1.00	7.85		R-L
FORD										
TAAF-A, TAAF-B (b)	3		2.78	1.62	1.00			3.375		No
PAJ-AB, PAH-AC	4		2.44a	1.48	1.00			2.09		No
TBAA-A	3		3.71	1.87	1.00			4.89		No
TEAA-A, THAB-A	4		6.40	3.09	1.69	1.00		7.82		R
TYAA-B	5		6.25	3.64	1.89	1.00	.756	6.17		R
TYAA-A	5		7.41	4.32	2.39	1.52	1.00	7.32		R
TFAA-B	5		6.06	3.50	1.80	1.00	.799	6.00		R-L
TGAA-B	5		7.58	4.38	2.40	1.48	1.00	7.61		R-L
TVAA-A, Aux.	3		1.27	1.00	.85					R-L
TVAA-B, Aux.	3		2.00	1.00	.73					R-L
F.W.D.										
Series 271	2	2	1.25	1.00						
Series 272	2	2	2.82	1.00						
Series 371	2	2	1.25	1.00						
Series 372	2	2	2.82	1.00						
WARNER										
T9	4	4	6.40	3.09	1.69	1.00		7.82		R-L
T9A	4	4	5.901	3.00	1.69	1.00		7.21		R
T9B	4	4	6.49	3.09	2.21	1.00		7.82		R
T9C	4	4	6.40	4.07	2.89	1.00		7.82		R
T87D*	3	3	3.714	1.871	1.00			4.586		No
T89B	3		3.17	1.75	1.00			3.76		No
T90A*-T90C*	3	3	2.798	1.551	1.00			3.799		No
T90B* (3)	3	3	3.34	1.85	1.00			4.53		No
T90D*, T90F*, T90H*	3	3	3.339	1.851	1.00			4.53		No
T90E*	3	3	3.34	1.851	1.00			4.53		No
T97	4	4	6.398	3.092	1.688	1.00		7.820		R
T98*	4	4	6.398	3.092	1.688	1.00		7.820		R-L
WATSON										
2021 Aux. (o'drive)	2	1	1.00	.82						No
2021 Aux. (und'drive)	2	2	1.22	1.00						L
41-Aux.	3	2	1.26	1.00	.830					R-L
42-Aux.	3	2	1.49	1.00	.830					R-L
43-Aux.	3	2	2.11	1.00	.830					R-L
47-Aux.	3	3	1.49	1.20	1.00					R-L
48-Aux.	3	3	2.11	1.20	1.00					R-L
6041 Aux.	4	4	2.14	1.24	1.00	.860				No
6041-A Aux.	4	3	2.14	1.24	1.00	.75				No
2023 Aux (O'drive)	2	1	1.00	.82						R

ABBREVIATIONS

*—Transmissions Synchronized. Air assist also available with Brown-Lipe synchronized transmissions.
†—Close Spaced Ratios.
‡—See 3-PT-65.
§—See 3-BX.
‡—Varies with Rev. Gear Ratios.
^—Additional Ratio Optional at Extra Cost.
(1)—Spicer Mfg. Co.
(2)—Overdrive.
(3)—Also available with R10B overdrive.
(4)—Gear ratio 1.00 in 6th.
L—Left side opening.
R-L—Right and left side openings.
R—Right side opening.
a—Lo-Low-2.10, converter stall ratio.
b—Overdrive ratio, 0.70 to 1.

Model	No. Speeds	Direct Drive In	Over Drive In	GEAR RATIOS 1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	Low Rev.	High Rev.	*Installation Dimension Inches	Weight Lbs.	Control C—Center F—Forward R—Remote	Clutch Housing Size	Oil Capacity In Pints	PTO Opening	Relative Speed PTO Gear to Input RPM Right	Left
FULLER																							
4-A-86	4	4	.....	6.54	3.27	1.76	1.00	.....	.....	.....	.....	.....	.....	7.24		23½	420	C or R	1,2	17	R & L	.553	.553
4-B-86	4	4th	.....	5.55	3.27	1.76	1.00	.....	.....	.....	.....	.....	.....	6.58		23½	420	C or R	1,2	17	R & L	.553	.553
4-A-860	4	3rd	4th	3.72	1.86	1.00	.76	.....	.....	.....	.....	.....	.....	4.12		23½	420	C or R	1,2	17	R & L	.973	.973
4-A-112	4	4th	.....	6.54	3.27	1.76	1.00	.....	.....	.....	.....	.....	.....	6.49		25½	525	F or R	1,2	21	R & L	.553	302‡
4-F-1440	4	3	4	3.06	1.78	1.00	.80	.....	.....	.....	.....	.....	.....	3.06		31	775	F or R	1	24	R & L	.815	.544
4-FS-1440†	4	3	4	1.98	1.40	1.00	.71	.....	.....	.....	.....	.....	.....	1.61		31	775	F or R	1,2	24	R & L	.92	.795
5-A-33	5	5th	.....	7.5	4.30	2.52	1.42	1.00	.....	.....	.....	.....	.....	7.37		20½	210	C or R	2,3,4	11	R	.271	.....
5-A-330	5	4th	5th	6.10	3.48	1.795	1.00	.788	.....	.....	.....	.....	.....	5.96		20½	210	C or R	2,3,4	11	R	.336	.....
5-B-33	5	5th	.....	7.53	4.30	2.52	1.42	1.00	.....	.....	.....	.....	.....	7.37		20½	218	C or R	2,3,4	11	R & L	.465	.465
5-B-330	5	4th	5th	6.10	3.48	1.795	1.00	.756	.....	.....	.....	.....	.....	5.98		20½	218	C or R	2,3,4	11	R & L	.575	.575
5-A-43	5	5th	.....	8.03	4.61	2.46	1.41	1.00	.....	.....	.....	.....	.....	8.00	4.71*	22	330	C or R	1,2,3	16	R & L	.444	.215
5-A-430	5	4th	5th	6.52	3.33	1.77	1.00	.771	.....	.....	.....	.....	.....	6.50	3.33*	22	330	C or R	1,2,3	16	R & L	.548	.265
5-A-62	5	5th	.....	8.08	4.67	2.62	1.38	1.00	.....	.....	.....	.....	.....	8.12	4.74*	24½	370	C or R	1,2,3	21	R & L	.429	.429
5-A-620	5	4th	5th	7.07	3.50	1.72	1.00	.776	.....	.....	.....	.....	.....	7.11	3.55*	24½	370	C or R	1,2,3	24	R & L	.489	.489
5-A-65	5	5th	.....	8.08	4.67	2.62	1.38	1.00	.....	.....	.....	.....	.....	8.12	4.74*	24½	411	F or R	1,2	24	R & L	.429	.429
5-A-650	5	4th	5th	6.37	3.40	1.74	1.00	.788	.....	.....	.....	.....	.....	6.40	3.35*	24½	411	F or R	1,2	24	R & L	.543	.543
5-C-65	5	5th	.....	8.08	4.67	2.62	1.38	1.00	.....	.....	.....	.....	.....	8.12	4.74*	24½	411	C or R	1,2	24	R & L	.429	.429
5-C-650	5	4th	5th	6.37	3.40	1.74	1.00	.788	.....	.....	.....	.....	.....	6.40	3.35*	24½	411	C or R	1,2	24	R & L	.543	.543
5-C-72	5	5th	.....	7.33	4.43	2.62	1.38	1.00	.....	.....	.....	.....	.....	7.33		25½	465	C or R	1,2	24	R & L	.429	.229
5-C-720	5	4th	5th	6.37	3.40	1.74	1.00	.75	.....	.....	.....	.....	.....	6.42		25½	465	C or R	1,2	24	R & L	.543	.291
5-A-1120	5	4th	5th	6.54	3.27	1.76	1.00	.744	.....	.....	.....	.....	.....	6.49		31	681	F or R	1,2	29	R & L	.553	302‡
5-F-1220	5	4th	5th	6.54	3.356	1.748	1.00	.744	.....	.....	.....	.....	.....	5.06		31	687	F or R	1	29	R & L	.553	387‡
5-FS-1220†	5	4th	5th	2.58	1.926	1.386	1.00	.747	.....	.....	.....	.....	.....	3.035		31	705	F or R	1	29	R & L	.698	488
10-FA-65	10	10th		18.867	10.731	8.08	6.02	4.67	3.17	2.62	2.298	1.38	1.00	18.659	8.12	39½	766	F or R	1,2	31	R & L	.429	.429
10-FA-650	10	9th	10th	14.638	7.822	6.37	3.993	3.404	2.298	1.81	1.738	1.00	.788	14.707	6.40	39½	766	F or R	1,2	31	R & L	.543	.543
10-FB-65	10	10th		10.609	8.08	6.13	4.67	3.44	2.62	2.219	1.69	1.313	1.00	10.661	8.12	39½	766	F or R	1,2	31	R & L	.429	.429
10-FB-650	10	9th	10th	8.364	6.37	4.489	3.404	2.282	1.738	1.313	1.034	1.00	.788	8.403	6.40	39½	766	F or R	1,2	31	R & L	.543	.543
10-CA-65	10	10th		18.867	10.731	8.08	6.02	4.67	3.17	2.62	2.298	1.38	1.00	18.659	8.12	39½	766	C or R	1,2	31	R & L	.429	.429
10-CA-650	10	9th	10th	14.638	7.822	6.37	3.993	3.404	2.298	1.81	1.738	1.00	.788	14.707	6.40	39½	766	C or R	1,2	31	R & L	.543	.543
10-CB-65	10	10th		10.609	8.08	6.13	4.67	3.44	2.62	2.219	1.69	1.313	1.00	10.661	8.12	39½	766	C or R	1,2	31	R & L	.429	.429
10-CB-650	10	9th	10th	8.364	6.37	4.489	3.404	2.282	1.738	1.313	1.034	1.00	.788	8.403	6.40	39½	766	C or R	1,2	31	R & L	.543	.543
10-A-1120	10	9th	10th	15.04	7.82	6.54	4.05	3.27	2.30	1.76	1.711	1.00	.744	14.93	6.49	43	960	F or R	1,2	38	R & L	.553	302‡
10-B-1120	10	8th	9-10	h 8.59	6.54	4.04	3.06	2.31	1.76	1.31	1.00	.835	.636	8.52	6.49	43	960	F or R	1,2	38	R & L	.553	302‡
10-F-1220	10	8th	9-10	6.526	4.97	3.923	2.985	2.295	1.748	1.313	1.00	.835	.636	5.029	3.83	43	962	F or R	1	38	R & L	.553	.387
R-46†	8	8	.....	9.78	6.96	4.99	3.68	2.66	1.90	1.38	1.00	.....	.....	11.01	2.99	29	457	F or R	1,2,3	17	R & L	.71	.71
R-96†	10	10	.....	9.65	7.43	5.80	4.46	3.54	2.73	2.10	1.64	1.27	1.00	11.26	3.18	38	767	C or R	1,2	33	R & L	.628	.628
R-960†	10	9	10	7.43	5.80	4.48	3.54	2.76	2.10	1.64	1.27	1.00	.78	11.26	3.18	38	767	C or R	1,2	33	R & L	.628	.628
R-1150†	9	8	9	9.20	6.88	4.94	3.55	2.59	1.94	1.39	1.00	.75	.....	11.76	3.31	43	1015	F or R	1	36	R & L	.698	.503
UR	2	1st R	.....	1.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.00	.....	14	152	.....	1,2,3	8	.....	.....	.....
UR 1.63	2	2nd	.....	1.63	1.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	14	152	.....	1,2,3	8	.....	.....	.....
AR	2	1st R	.....	1.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.00	.....	11½	120	R	.....	8	.....	.....	.....
AR 1.63	2	2nd	.....	1.63	1.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	11½	120	R	.....	8	.....	.....	.....
2-A-62	2	2nd	.....	1.58	1.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	9½	165	R	.....	7	.....	.....	.....
2-B-62	2	2nd	.....	1.33	1.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	9½	165	R	.....	7	.....	.....	.....
2-A-82	2	2nd	.....	2.296	1.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	16	315	R	.....	12	.....	.....	.....
2-B-82	2	2nd	.....	1.313	1.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	16	315	R	.....	12	.....	.....	.....
3-A-65	3	2nd	3rd	2.221	1.00	.754	.....	.....	.....	.....	.....	.....	.....	.....	.....	19	270	R	.....	13	R & T‡	.941	.....
3-B-65	3	2nd	3rd	1.239	1.00	.804	.....	.....	.....	.....	.....	.....	.....	.....	.....	19	270	R	.....	13	R & T‡	.941	.....
3-A-92	3	2nd	3rd	2.09	1.00	.754	.....	.....	.....	.....	.....	.....	.....	.....	.....	22	350	R	.....	17	R & T‡	1.036	.....
3-B-92	3	2nd	3rd	1.235	1.00	.836	.....	.....	.....	.....	.....	.....	.....	.....	.....	22	350	R	.....	17	R & T‡	1.036	.....
3-T-92	3	2nd	3rd	2.09	1.00	.754	.....	.....	.....	.....	.....	.....	.....	.....	.....	22	553	R	.....	24	.....	.....	.....
PD-45	2	2nd	.....	1.90	1.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	20½	328	R	.....	14	.....	.....	.....
3-BX	1	.....	.....	1.08	(Multiply Forward Gear Ratios of Unit Mounted Transmissions by 1.08)											.....	65	R	.....	.....	.....	.....	.....
3-PT-65	2	.....	.....	1.03	(Multiply Forward Gear Ratios of Unit Mounted Transmission by 1.03 and 1.015)											.....	100	R	.....	.....	.....	.....	.....

Transportation Engineering Formulas

PISTON DISPLACEMENT

Piston Displacement in cu. in. = B × B × .7854 × S × No. of Cylinders

B = Bore

S = Stroke

.7854 = Constant comprising the conversion of the area of a square to the area of a circle of the same dimensions

TORQUE AT PEAK HP

$$\text{Torque at Peak HP} = \frac{\text{HP} \times 5252}{\text{RPM}}$$

5252 = Constant resulting from the conversion of torque and RPM into horsepower

HP = Maximum net horsepower (See Horsepower formula)

Peak HP = Maximum useful horsepower

MAX. NET ENGINE TORQUE

Torque in lb. ft. = .80 × cu. in. Piston Displacement. (This is approximate and should be used only when actual torque is not known.)

.80 = Average figure based on analysis of a number of torque curves.

FINAL GEAR RATIO

$$\text{FGR} = \frac{\text{R} \times \text{GVW} \times (\text{GA} + .012)}{\text{lb. in. Torque} \times .90}$$

GA = Grade Ability

GVW = Gross Vehicle Weight

lb. in. Torque = 12 × lb. ft. Torque

R = Rolling Radius in Inches

.90 = Efficiency for all rear axles except worm, then .85

.012 = Rolling resistance on hard-surfaced roads

TRACTIVE EFFORT

$$\text{TE} = \frac{\text{lb. in. Torque} \times \text{FGR} \times .90}{\text{R}}$$

R = Rolling Radius in Inches

FGR = Final Gear Ratio

lb. in. Torque = 12 times Torque in lb. ft.

.90 = Efficiency for all rear axles except worm, then .85

GRADE ABILITY

$$\text{GA} = \frac{\text{TE}}{\text{GVW}} \text{ minus } .012$$

GA = Grade Ability

TE = Tractive Effort

GVW = Gross Vehicle Weight

.012 = 12 lb. per 1000 lb., rolling resistance on hard-surfaced roads

THIRD AXLES & TRAILER

THIRD AXLE MAKE AND MODEL and Truck Model Adapted to	Capacity (Lb.) See Explanatory Notes	Price (f. o. b. factory)	Weight (Lb.) with Max. Tires, Frame Extension, Etc.	Maximum Tire Size	LOAD DISTRIBUTION RANGE (First figure or combination applies to center axle; second figure to third axle)		Axle Spacing (in inches) (with maximum tires)	AXLE DATA: Make	AXLE DATA: Type	AXLE DATA: Size	BRAKES (Standard): Make and Type	BRAKES (Standard): Drum Material	BRAKES (Standard): Brake Diameter and Width	BRAKES (Standard): Lining Area	Number of Points of Frame Support	Spring Size or Number Leaves Added	Spindle Diameter (at inner bearing)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Trailing Axles																	
FABCO																	
1250 (Ford, Chevrolet)	13000	.....	2000	9.00/20	56-44	.....	48½	Var	T	4½	LH	CA	15x3½	192	2	53x2½	2½
1250 (All other makes)	13000	.....	2000	9.00/20	56-44	.....	48½	Var	T	4½	LH	CA	15x3½	192	2	53x2½	2½
1250 (F700 Ford)	13000	.....	2500	9.00/20	56-44	.....	48½	Var	T	4½	M	CA	16½x5	325	2	56x3	3
1250 (All other makes)	13000	.....	2500	9.00/20	56-49	.....	48½	Var	T	4½	M	CA	16½x5	325	2	56x3	3
1000 (F750-800-900 Ford)	14000	.....	3000	11.00/22	56-44	.....	48½	Var	T	4½	M	CA	16½x5	325	2	56x3	3
	14000	.....	3000	11.00/22	56-44	.....	52	Var	T	4½	M	CH	16½x6	435	2	60x3	3
1000 (All other makes)	14000	.....	3000	11.00/22	56-44	.....	48½	Var	T	4½	M	CA	16½x5	325	2	56x3	3
	14000	.....	3000	11.00/22	56-44	.....	52	Var	.....	4½	M	CH	16½x6	435	2	60x3	3
Tractor Special	14000	.....	2200	11.00/22	35-65	.....	Var	Var	T	4½	M	.....	Var	.....	2	Var	3
GRICO SUPER-FLEX																	
T-130, F-800	14000	.....	2350	9.00/20	50-50	.....	48†	Shu	T	4½	H	CA	16x4	271	2	48, 18	.....
T-135—Chev.	14000	.....	2350	9.00/20	50-50	.....	48†	SF	T	4½	H	CA	16x4	271	2	48, 18	.....
T-145 others	16000	.....	2550	11/20-22	50-50	.....	48†	Shu	T	5	H/AV	CA	Var	Var	2	48, 18	.....
T-165 others	18000	.....	2875	11/20 22	50-50	.....	48†	Shu	T	5	AV	CA	Var	Var	2	48, 18	.....
HUTCHENS																	
H-100T (truck & trailer)	24000	†††	917**	11.00/22	50-50	52-46	50	Var	Var	Var	Var	Var	Var	Var	6	43¾x3	.....
H-200T (truck & trailer)	20000	†††	800**	11.00/22	50-50	54-46	50	Var	Var	Var	Var	Var	Var	Var	6	43¾x3	.....
H-300T (truck & trailer)	20000	†††	796**	11.00/22	50-50	54-46	50	Var	Var	Var	Var	Var	Var	Var	6	43¾x3	.....
LITTLE GIANT																	
A	11000	.....	1920	8.25/20	53-47	42	42	Own (g)	Sq	2¾	WagH	CA	15x4	253.5	2	42x2½	2½
					50-50	49(f)										49x2½(f)	.....
B	13000	.....	2450	9.00/20	50-50	44	44	Own (g)	Sq	3	WahH	CA	16x4	270.7	2	44x3	2½
					50-50	49(f)	49									49x3(f)	.....
C	15000	.....	2850	10.00/20	50-50	44	44	Own (g)	Sq	3¼	WagHA	CA	16x5	338	2	44x3½	3⅛
					50-50	49(f)	49									49x3½(f)	.....
D	18000	.....	3050	11.00/20	50-50	49	49	Own (g)	Sq	3½	WagHA	CA	16x6	406	2	49x3½	3¼
MAXI CORP. "MAXI"																	
15	13000	.....	1800	7.50/20	55-45	.....	45	Var	T	4½	Var	Var	Var	Var	1	45x3½	Var
15	13000	.....	1800	8.25/20	55-45	.....	45	Var	T	4½	Var	Var	Var	Var	1	45x3½	Var
15	13000	.....	1800	9.00/20	55-45	.....	45	Var	T	4½	Var	Var	Var	Var	1	45x3½	Var
15	15000	.....	1800	8.25/20	55-45	.....	45	Var	T	4½	Var	Var	Var	Var	1	45x3½	Var
15	15000	.....	1800	9.00/20	55-45	.....	45	Var	T	4½	Var	Var	Var	Var	1	45x3½	Var
15	15000	.....	1800	10.00/20	55-45	.....	45	Var	T	4½	Var	Var	Var	Var	1	45x3½	Var
20	18000	.....	2100	10.00/20	52-48	.....	48	Var	T	5	Var	Var	Var	Var	1	48x3½	Var
20	18000	.....	2100	10.00/22	52-48	.....	48	Var	T	5	Var	Var	Var	Var	1	48x3½	Var
20	18000	.....	2100	11.00/20	52-48	.....	48	Var	T	5	Var	Var	Var	Var	1	48x3½	Var
20	18000	.....	2100	11.00/22	52-48	.....	48	Var	T	5	Var	Var	Var	Var	1	48x3½	Var
20	20000	.....	2250	11.00/20	52-48	.....	48	Var	T	5	Var	Var	Var	Var	1	48x3½	Var
20	20000	.....	2250	11.00/22	52-48	.....	48	Var	T	5	Var	Var	Var	Var	1	48x3½	Var
NEWAY																	
TA-800 (Trailing)	18000	.....	300**	11.00/22	40-60	50-50	48-50	Var	Var	Var	Var	Var	Var	Var	4	.....	Var
TP-500 (Pusher)	9000	.....	1000**	11.00/22	33-67	.....	50	Own	Spec	Var	Var	Var	Var	Var	6	.....	2½
REYCO																	
17214-1 (For any 1½-3 ton truck)	14000	.....	881**	1100/22	50-50	52-48	50¾	Var	Var	Var	Var	Var	Var	Var	6	43½x3	.....
21218-1 (For any 3½-5 ton truck)	18000	.....	815**	11.00/22	50-50	52-48	51	Var	Var	Var	Var	Var	Var	Var	6	43½x3	.....
21218-4 (For any 3½-5 ton truck)	18000	.....	800**	11.00/22	50-50	52-48	51	Var	Var	Var	Var	Var	Var	Var	6	43½x3	.....
17222-1 (For trucks over 5 tons)	22000	.....	1077**	11.00/22	50-50	52-48	50¾	Var	Var	Var	Var	Var	Var	Var	6	43½x3	.....
SUPER LOAD BOOSTER (Pusher)**																	
LB 26 (C, D, F, V 1½ & 2 ton)	13000	.....	2650	8.25/20	50-50	.....	48	Own	T	4½	VH	CA	15x4	251	2	48x3½	2⅝
LB 30 (F Ford F700 & F750)	16000	.....	2820	9.00/20	50-50	.....	48	Own	T	5	VH	CA	16x5	345	2	48x3½	3¼
LB 30 (D, V 1½ & 2 ton)	15000	.....	2820	9.00/20	50-50	.....	48	Own	T	4½	VH	CA	15x4	251	2	48x3½	3
LB 34 (D, F, V 3 ton)	17000	.....	3280	10.00/20	50-50	.....	48	Own	T	5	VH or A	CA	16x5	345	2	48x3½	3¼
LB 40 (D, F, V 3½ ton)	20000	.....	3480	11.00/20	50-50	.....	48	Own	T	5	VH or A	CA	16x6	370	2	48x3½	3⅝
TANDEM TRAC (Pusher)																	
BPD Ford, Chevrolet	14000	.....	1000**	9.00/20	40-60	50-50	50	Var	T	4½	H	CA	15x4	Var	2	Spl	Var
BPD All Other Makes	14000	.....	1000**	9.00/20	40-60	50-50	50	Var	T	4½	H	CA	15x4	Var	2	Spl	Var
BPD All Other Makes	14000	.....	1000**	9.00/20	40-60	50-50	50	Var	T	4½	H	CA	16x5	Var	2	Spl	Var
BPD All Other Makes	14000	.....	1000**	9.00/20	40-60	50-50	50	Var	T	4½	MA	CA	16½x4	Var	2	Spl	Var
BPD Ford, Chevrolet	18000	.....	1000**	11.00/22	40-60	50-50	50	Var	T	5	H	CA	16x5	Var	2	Spl	Var
BPD All Other Makes	18000	.....	1000**	11.00/22	40-60	50-50	50	Var	T	5	H	CA	16x5	Var	2	Spl	Var
BPD Ford, Chevrolet	18000	.....	1000**	11.00/22	40-60	50-50	50	Var	T	5	MA	CA	16½x5	Var	2	Spl	Var
BPD All Other Makes	18000	.....	1000**	11.00/22	40-60	50-50	50	Var	T	5	MA	CA	16½x5	Var	2	Spl	Var
TANDEM TRAC (Trailing Axles)																	
BDT Ford, Chevrolet	14000	.....	1000**	9.00/20	60-40	50-50	50	Var	T	4½	H	CA	15x4	Var	2	(y)	Var
BDT All Other Makes	14000	.....	1000**	9.00/20	60-40	50-50	50	Var	T	4½	H	CA	15x4	Var	2	(y)	Var
BDT All Other Makes	14000	.....	1000**	9.00/20	60-40	50-50	50	Var	T	4½	H	CA	16x5	Var	2	(y)	Var
BDT All Other Makes	14000	.....	1000**	9.00/20	60-40	50-50	50	Var	T	4½	MA	CA	16½x4	Var	2	(y)	Var
BDT Ford, Chevrolet	18000	.....	1000	11.00/22	60-40	50-50	50	Var	T	5	H	CA	16x5	Var	2	(y)	Var
BDT All Other Makes	18000	.....	1000	11.00/22	60-40	50-50	50	Var	T	5	H	CA	16x5	Var	2	(y)	Var
BDT Ford, Chevrolet	18000	.....	1000	11.00/22	60-40	50-50	50	Var	T	5	MA	CA	16½x5	Var	2	(y)	Var
BDT All Other Makes	18000	.....	1000	11.00/22	60-40	50-50	50	Var	T	5	MA	CA	16½x5	Var	2	(y)	Var

Column 1.—**—C—Chevrolet, D—Dodge, F—Ford, V—Various.

Note 1. Two-axle self-steering undercarriage uses any standard trailer axle.

Note 2. Suspension kit only is available for conversion of single axle trailers to tandems.

†—13,000 lb. axle available in 68.1 and 69.5 track.

††—17,000 lb. axle available in 71.5 track.

Column 2.—Not to be confused with the total capacity made possible on the converted vehicle.

Column 3.—The price of the unit includes the standard brakes specified in brake column and frame extensions.

Column 4.—Weight of third ax.: unit includes all appurtenances and maximum tires.

*—Does not include axle.

**—Does not include frames, wheels, axles, etc.

***—Curb weight of complete six-wheeler truck.

Column 15.—Attachment unit only.

COLUMN 9

Chev—Chevrolet
Shu—Shuler
Tim—Timken
Wag—Wagner Hi-Tork

COLUMN 10

D—Driving
Re—Rectangular
SF—Standard Forge
Sr—Solid round
Sq—Square
T—Tubular

SUSPENSIONS

THIRD AXLES

(Continued on next page)

THIRD AXLE MAKE AND MODEL and Truck Model Adapted to	Capacity (Lb.) See Explanatory Notes	Price (f. o. b. factory)	Weight (Lb.) with Max. Tires, Frame Extension, Etc.	Maximum Tire Size	LOAD DISTRIBUTION RANGE (First figure or combination applies to center axle; second figure to third axle)		Axle Spacing (in inches) (with maximum tires)	AXLE DATA			BRAKES (Standard)				Number of Points of Frame Support	Spring Size or Number Leaves Added	Spindle Diameter (at inner bearing)
								Make	Type	Size	Make and Type	Drum Material	Brake Diameter and Width	Lining Area			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
TRAILMOBILE																	
CTA-32 (All trucks 2 to 4½ ton)	13000	‡‡	2100	11.00/22	58-42	.....	48	Tim	T	4½	Tim	CA	16½x6	434	4	None	2⅞
CTA-42 (All heavy-duty trucks)	18000	‡‡	2300	11.00/22	58-42	.....	48	Tim	T	5	Tim	CA	16½x6	434	4	None	3¼
TRUCK EQUIPMENT CO. (Duaload)																	
825 C, F, X 1½ to 2 ton	12000	‡‡	2400	8.25/20	51-49	62-38	44	Own	Sq	2¾	H	CA	15x3½	200	4	(a)	2⅞
825 CL, FL, XL 1½ to 2 ton	12000	‡‡	2400	8.25/20	51-49	62-38	48¼	Own	Sq	2¾	H	CA	15x3½	200	4	(a)	2⅞
TRUCKSTELL HYDRO-TRAC																	
300 Chev. 6000	13000	.....	1884(j)	9.00/20	50-50	80-20(h)	48½	SF	T	4½	WagH	CA	15x4	236	4	28½x3 7/8 (k)	2½
300 Dodge H	13000	.....	1840(j)	8.25/20	50-50	80-20(h)	50	SF	T	4½	WagH	CA	15x4	236	4	28½x3 7/8 (k)	2½
300 Dodge J	13000	.....	1840(j)	8.25/20	50-50	80-20(h)	50	SF	T	4½	WagH	CA	15x4	236	4	28½x3 7/8 (k)	2½
300 Dodge K	13000	.....	1890(j)	9.00/20	50-50	80-20(h)	50	SF	T	4½	WagH	CA	15x4	236	4	28½x3 7/8 (k)	2½
300 Ford F-600	13000	.....	1820(j)	8.25/20	50-50	80-20(h)	50	SF	T	4½	WagH	CA	15x4	236	4	28½x3 7/8 (k)	2½
300 Light trucks†	13000	.....	1880(j)	9.00/20	50-50	80-20(h)	50	SF	T	4½	WagH	CA	15x4	236	4	28½x3 7/8 (k)	2½
400 Dodge R	17000	.....	2100(j)	9.00/20	50-50	80-20(h)	50	SF	T	5	SFA	CA	16½x6	444	4	28½x3 7/8 (k)	2½
400 Ford F-700, F-750	13000	.....	1900(j)	9.00/20	50-50	80-20(h)	50	SF	T	4½	WagH	CA	15x5	295	4	28½x3 7/8 (k)	2½
400 Medium trucks†	13000	.....	1900(j)	9.00/20	50-50	80-20(h)	50	SF	T	4½	WagH	CA	15x5	295	4	28½x3 7/8 (k)	2½
500 Dodge T	17000	.....	2320(j)	10.00/20	50-50	80-20(h)	50	SF	T	5	WagH	CA	16x5	315	4	28½x3 7/8 (k)	2½
500 Dodge V	17000	.....	2430(j)	11.00/20	50-50	80-20(h)	50	SF	T	5	SFA	CA	16½x6	444	4	28½x3 7/8 (k)	2½
500 Ford F-800	17000	.....	2290(j)	10.00/20	50-50	80-20(h)	50	SF	T	5	WagH	CA	16x5	315	4	28½x3 7/8 (k)	2½
500 Ford F-800	17000	.....	2358(j)	10.00/20	50-50	80-20(h)	50	SF	T	5	SFA	CA	16½x6	444	4	28½x3 7/8 (k)	2½
500 Ford F-800	17000	.....	2325(j)	11.00/20	50-50	80-20(h)	50	SF	T	5	WagH	CA	16x5	315	4	28½x3 7/8 (k)	2½
500 Ford F-800	17000	.....	2398(j)	11.00/20	50-50	80-20(h)	50	SF	T	5	SFA	CA	16½x6	444	4	28½x3 7/8 (k)	2½
500 Heavy trucks††	17000	.....	2290(j)	11.00/20	50-50	80-20(h)	50	SF	T	5	WagH	CA	16x5	315	4	28½x3 7/8 (k)	2½
500 Heavy trucks††	17000	.....	2358(j)	11.00/20	50-50	80-20(h)	50	SF	T	5	SFA	CA	16½x6	444	4	28½x3 7/8 (k)	2½
TRUCKTOR (x)																	
HLL Light Trucks (8.25x20 T)	11000	.....	1895	8.25/20	53-47	.....	46-50	Own	Sr	3	HV	CA	15x4	216	6	38½x2½	2⅝
HLS Med. Trucks (9.00x20 T)	14000	.....	2265	9.00/20	53-47	.....	47-50	Own	Sr	3½	HV	CA	15x5	218	6	38½x3	2⅝
HLS Ford F-700 (9.00x20)	14000	.....	2265	9.00/20	53-47	.....	47-50	Own	Sr	3½	HV	CA	15x5	218	6	38½x3	2⅝
HLR Heavy Trucks (10.00x20)	16000	.....	2710	10.00/20	53-47	.....	48-50	Own	Sr	3½	WAM	CA	16½x6	451	6	40x3	2¾
HLR Ford F-800 (10.00x20)	16000	.....	2710	10.00/20	53-47	.....	48-50	Own	Sr	3½	WAM	CA	16½x6	451	6	40x3	2¾
HR Heavy Duty Truck (12.00x20)	21000	.....	3177	12.00/20	53-47	.....	49-52	Own	Sr	4	WAM	CA	16½x6	451	6	41½x3	3⅛
HR-5 Extra Heavy Duty	30000	.....	3358	12.00/24	53-47	.....	52	Own	Sr	5	WAM	CA	16½x7	512	6	43½x4	3½
HS Trucktor-Tractor	14000	.....	1700	11.00/20	70-30	.....	49-50	Own	Sr	3⅛	WAM	CA	16½x3	217	6	38½x3	2⅝
U. N. (Universal heavy duty)	18000	.....	2480	11.00/20	50-50	.....	50	Var	T	S	WAM	CA	16½x6	451	6	40x3	2½
TRUXMORE (y)																	
280 Series	12000	‡‡	2400	8.25/20	51-49	62-38	44½-48	Own	Sq	2¾	H	CA	15x3½	200	4	**	2⅛
340 (Standard)	14000	‡‡	2700	9.00/20	50-50	58-42	47-48	Own	Sq	3	H	CA	16x3½	210	4	**	2⅛
340HT (Hi-tork brake)	14000	‡‡	2750	9.00/20	50-50	58-42	47-48	Own	Sq	3	H	CA	16x5	340	4	**	2⅛
340A (Air brake)	14000	‡‡	2800	9.00/20	50-50	58-42	47-48	Own	Sq	3	MW	CA	16½x4	305	4	**	2⅛
400 (HI-tork Hyd. brake)	16000	‡‡	3100	10.00/20	51-49	60-40	48-49	Own	Sq	3¼	H	CA	16x5	340	4	**	3⅛
400 (Oversize brake)	16000	‡‡	3150	10.00/20	51-49	60-40	48-49	Own	Sq	3½	H	CA	16x6	410	4	**	3⅛
400A (Air brake)	16000	‡‡	3200	10.00/20	51-49	60-40	48-49	Own	Sq	3¼	MW	CA	16½x5	380	4	**	3⅛
450 (Hi-tork Hyd. brake)	18000	‡‡	3400	11.00/20	51-49	60-40	49-50	Own	Sq	3¼-3½	H	CA	16x6	410	4	**	3¼
450A (Air brake)	18000	‡‡	3450	11.00/20	51-49	60-40	49-50	Own	Sq	3¼-3½	MW	CA	16½x6	455	4	**	3¼
50H (Hyd. brake)	20000	‡‡	3800	11.00/24	50-50	65-35	49-53	Own	Sq	3½	H	CA	17½x5	380	4	**	3⅜
50A (Air brake)	20000	‡‡	3850	11.00/24	50-50	65-35	49-53	Own	Sq	3½	MW	CA	17½x5½	410	4	**	3⅜
UTILITY																	
25	9000	(x)	1410	8.25/20	55-45	.....	41	Own	Sq	2½	HV or A	CA	16x3½	230	4	None	2¼
30	16500	(x)	2080	10.00/20	55-45	67-33	44	Own	Sq	3	HV or A	CA	16x5	300	4	None	2¾
35	20500	(x)	2525	11.00/24	55-45	67-33	50	Own	Sq	3½	HV or A	CA	17x6	420	4	None	3
30S	16500	(x)	2410	10.00/20	55-45	67-33	44	Own	Sq	3	HV or A	CA	16x5	300	4	40x3	2¾
35S	20500	(x)	2920	11.00/24	55-45	67-33	50	Own	Sq	3½	HV or A	CA	17x6	420	4	40x3	3

Driving Axles

FABCO																	
1550 (Ford, Chevrolet)	15000	(z)	2600	9.00/20	50-50	.....	48½	Ford	D	.....	FH	CA	15x5	312	2	53x2½	3
1550 (All other makes)	15000	(z)	2600	9.00/20	50-50	.....	48½	Match	D	.....	Match	CA	Match	(z)	2	53x2½	(z)
2000 (F750 Ford)	15000	(z)	3200	10.00/20	50-50	.....	48½	Ford	D	.....	FH	CA	15x5	312	2	56x3	3
2000 (F800, F900 Ford)	17000	(z)	3600	10.00/20	50-50	.....	48½	Ford	D	.....	HorA	CA	16x5	(z)	2	56x3	3
2000 (All other makes)	20000	(z)	4000	11.00/20	50-50	.....	48½	Match	D	.....	HorA	CA	Var	(z)	2	56x3	(z)
GRICO	16000	.....	3250	9.00/20	50-50	.....	48†	Own	D	.....	H	CA	15x4	251	2	48, 18	.....
THORNTON DRIVE																	
A2C30 Chev. 2 ton	15000	.....	3600	8.25/20	50-50	.....	52⅝	Eat	D	4½	VH	CA	15x4	251	2	48x2½	3
A9D30 Dodge FA, HA, JA	13000	.....	3300	8.25/20	50-50	.....	48	Dodge	D	4½	VH	CA	16x3	251	2	48x2½	2⅛
A2 Various	13000	.....	3300	8.25/20	50-50	.....	48	Eat	D	4½	VH	CA	15x4	251	2	48x2½	2⅝
A2F30 Ford F500 & F600	13000	.....	3300	8.25/20	50-50	.....	48	Ford	D	4½	VH	CA	15x4	251	2	48x2½	2⅝
A6F36 Ford F700 & F750	15000	.....	3600	9.00/20	50-50	.....	52⅝	Eat	D	4½	VH	CA	15x4	251	2	48x2½	3
A6 Various	15000	.....	3600	9.00/20	50-50	.....	52⅝	Eat	D	4½	VH	CA	15x4	251	2	48x2½	3
A6D35	15000	.....	3600	9.00/20	50-50	.....	52⅝	Eat	D	4½	VH	CA	16x3	251	2	48x2½	3
A15F41 Ford F800	17000	.....	3700	10.00/20	50-50	.....	52⅝	Ford	D	5½	VH or A	CA	16x5	345	2	48x2½	3¼
A15 Various	17000	.....	3700	10.00/20	50-50	.....	52⅝	Eat	D	5½	VH or A	CA	16x5	345	2	48x2½	3¼
A14F41 Ford F800	17000	.....	3800	10.00/20	50-50	.....	52⅝	Ford	D	5½	VH or A	CA	16x5	345	2	48x2½	3¼
A14 Various	17000	.....	3800	10.00/20	50-50	.....	52⅝	Eat	D	5½	VH or A	CA	16x5	345	2	48x2½	3¼

COLUMN 12

A—Air
B—Bendix
C—Chevrolet
F—Ford
H—Hydraulic
L—Lockheed
M—Mechanical
O—Own
V—Vacuum Power
W—Westinghouse
†—Own or Westinghouse optional

COLUMN 13

C—Cast Iron
CA—Cast Alloy Iron

‡‡—On application.
(a)—Long slip-spline joint supplied for drive axle in place of radius rods.
(f)—Optional equipment.
(g)—Round, square or I-sectional axles.
(h)—Available with hand or electric cab-operated hydraulic pump for transferring axle load for added traction or for raising axle clear of ground.
(j)—Includes weight of hydraulic load transfer system.
(k)—Original track mainspring and overload spring also used.
(x)—Patented 4-wheel chain drive available.
(y)—Tandem Trac provides suspension for both axles with a new type of two-stage proportional springing with ample range from no-load to overload conditions.
(z)—Depends upon installation.
Var—Various
(1)—A—16½x5½
(2)—A—16½x6
(3)—A—16½x5

Third Axles and Trailer Suspensions

(For Notes and Abbreviations, see page 134)

THIRD AXLE MAKE AND MODEL and Truck Model Adapted to	Capacity (Lb.) See Explanatory Notes	Price (f. o. b. factory)	Weight (Lb.) with Max. Tires, Frame Extension, Etc.	Maximum Tire Size	LOAD DISTRIBUTION RANGE (First figure or combination applies to center axle; second figure to third axle)		Axle Spacing (in inches) (with maximum tires)	AXLE DATA			BRAKES (Standard)				Number of Points of Frame Support	Spring Size or Number Leaves Added	Spindle Diameter (at inner bearing)
								Make	Type	Size	Make and Type	Drum Material	Brake Diameter and Width	Lining Area			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
TRUCKSTELL																	
300 Ford F500	11000		7400	8.25/20	50-50		50	Ford	D	3⅜-3½	VFH	CA	14½x3½		2	65x2½	2⅝
300 Ford F800	13000		7800	8.25/20	50-50		50	Ford	D	3⅜-4¼	VFH	CA	15x4		2	65x2½	2⅝
300 Chevrolet	13000		7800	8.25/20	50-50		50	Chev.	D	4	VCH	CA	15x4	251	2	65x2½	2⅝
300 Dodge B4J	13500		7800	8.25/20	50-50		50	Dodge	D	4½	VDH	C	15x4	252	2	65x2½	
400 Ford F700 & F750	15000		9200	9.00/20	50-50		50	Ford	D	4¼	VFH	CA	15x5	312	2	60x3	3
400 Dodge B4K	15000		9200	9.00/20	50-50		50	Dodge	D	Re	VDH	C		252	2	60x3	
500 Dodge B4R	15000		9300	9.00/20	50-50		50	Dodge	D	Re	VDH	C	16½x3½	217	2	60x3	
500 Ford F800	17000		10300	10.00/20	50-50		50	Ford	D	5½	VFH or A	CA	16x5(1)	Var	2	60x3	3¼
500 Dodge B4T	17000		10300	10.00/20	50-50		50	Dodge	D	Re	VDH or A	C	16½x4(2)	Var	2	60x3	
500 Ford F900	21000		10900	10.00/20	50-50		50	Ford	D	5½	VFH or A	CA	16x6(3)	Var	2	60x3	3¼
Trailer Suspensions																	
GRICO	18000		3400	11/20 22	50-50		48†	Shu	T	5	AV	CA	16½x6-7	Var	2	48, 18	
HOOBLER																	
AT-48 (Note 1)	48000	‡‡	6100	11.00/22	50-50		108¾	Note 1	Note 1	Var	Var	Var	Var	Var	2	42x4	Var
HUTCHENS																	
H-100S (All makes)	24000	‡‡	429**	11.00/22				Var	Var	Var	Var	Var	Var	Var	6		
H-200S (All makes)	20000	‡‡	386**	11.00/22				Var	Var	Var	Var	Var	Var	Var	6		
H-300S (All makes)	20000	‡‡	386**	11.00/22				Var	Var	Var	Var	Var	Var	Var	6		
H-600 (All makes)	24000	‡‡	1267**	11.00/22	50-50	54-56	50	Var	Var	Var	Var	Var	Var	Var	6	43¾x3	
NEWAY																	
334 (2-spring tandem)	34000		1085**	12.00/20	50-50		48-49	Var	Var	Var	Var	Var	Var	Var	2		Var
336 (2-spring tandem)	36000		1145**	12.00/20	50-50		48-49	Var	Var	Var	Var	Var	Var	Var	2		Var
402 (2-spring tandem)	44000		1220**	12.00/20	50-50		48-51	Var	Var	Var	Var	Var	Var	Var	2		Var
836 (2-spring tandem)	36000		1177**	12.00/20	50-50		50½-51½	Var	Var	Var	Var	Var	Var	Var	2		Var
842 (2-spring tandem)	42000		1250**	12.00/24	50-50		50½-53½	Var	Var	Var	Var	Var	Var	Var	2		Var
850 (HD) (2-spring tandem)	50000		1290**	12.00/24	50-50		50½-51½	Var	Var	Var	Var	Var	Var	Var	2		Var
860 (HD) (2-spring tandem)	60000		1610**	12.00/24	50-50		53-53½	Var	Var	Var	Var	Var	Var	Var	2		Var
T-638 (4 spring tandem)	36000		734**	12.00/24	50-50		50¾	Var	Var	Var	Var	Var	Var	Var	6		Var
WB-40 (walking beam tandem)	40000		840**	Var	50-50		Var	Var	Var	Var	Var	Var	Var	Var	2		Var
WB-50 (walking beam tandem)	50000		850**	Var	50-50		Var	Var	Var	Var	Var	Var	Var	Var	2		Var
WB-60 (walking beam tandem)	60000		949**	Var	50-50		Var	Var	Var	Var	Var	Var	Var	Var	2		Var
WB-70 (walking beam tandem)	70000		1050**	Var	50-50		Var	Var	Var	Var	Var	Var	Var	Var	2		Var
SB-50 (spring beam tandem)	50000		889**	12.00/24	50-50		52½-50½	Var	Var	Var	Var	Var	Var	Var	2		Var
AR-2000 (tandem air suspension)	36000		770**	11.00/22	50-50		50	Var	Var	Var	Var	Var	Var	Var	Gen	eral Air Spring	
NN-900 (wide spread tand. susp.)	40000		1600**	11.00/22	50-50		110	Var	Var	Var	Var	Var	Var	Var	4		Var
NN-950 (wide spread tand. susp.)	40000		1380**	11.00/22	50-50		110	Var	Var	Var	Var	Var	Var	Var	4		Var
NN-960 (wide spread tand. susp.)	40000		980**	11.00/22	50-50		110	Var	Var	Var	Var	Var	Var	Var	4		Var
S-618 (single)	20000		360**	Var	50-50			Var	Var	Var	Var	Var	Var	Var	4		Var
S-718 (single)	20000		460**	Var	50-50			Var	Var	Var	Var	Var	Var	Var	4		Var
T-6600 (3-axle)	60000		1470**	12.00/20	1-1-1		50½-50½	Var	Var	Var	Var	Var	Var	Var	8		Var
T-6750 (3-axle)	75000		1590**	12.00/20	1-1-1		50½-50½	Var	Var	Var	Var	Var	Var	Var	8		Var
WB-4 (4-axle walking beam)	100000		2300**	12.00/24	1-1-1-1		45 45 45	Var	Var	Var	Var	Var	Var	Var	Lar	2		Var
REYCO																	
17114-1 (Single)	14000		415**	11.00/22				Var	Var	Var	Var	Var	Var	Var	4	43½x3	
21118-1 or 3 (Single)	18000		404**					Var	Var	Var	Var	Var	Var	Var	4	43½x3	
21118-1 U. S. (Single for Low Boy tr.)	18000		454**	11.00/22				Var	Var	Var	Var	Var	Var	Var	4	43½x3	
17122-1 (Single)	22000		517**	11.00/22				Var	Var	Var	Var	Var	Var	Var	4	51½x3	
1300-25 (Single)	25000		565**	11.00/22				Var	Var	Var	Var	Var	Var	Var	4	44x3	
17214-1 (Tandem)	28000		881**	11.00/22	50-50	52-48	50¾	Var	Var	Var	Var	Var	Var	Var	6	43½x3	
21218-1 or 3 (Tandem)	38000		815**	11.00/22	50-50	50-50	51	Var	Var	Var	Var	Var	Var	Var	6	43½x3	
21218-148 (Tandem for Hi-Cube tr.)	36000		815**	11.00/22	50-50	50-50	48	Var	Var	Var	Var	Var	Var	Var	6	41½x3	
24218-19 (Tand. Lg.-Boy, 127-74 in.)	38000		1037**	11.00/22	50-50	50-50	110	Var	Var	Var	Var	Var	Var	Var	7	43½x3	
21218-1 U. S. (Tand. for Low Boy tr.)	38000		849**	11.00/22	50-50	50-50	51	Var	Var	Var	Var	Var	Var	Var	6	43½x3	
17222-1 (Tandem)	44000		1077**	11.00/22	50-50	52-48	50¾	Var	Var	Var	Var	Var	Var	Var	6	43½x3	
SIX WHEELS INC.																	
2-15	26000		2300	8.25/20	50-50		48	Var	T	4½	Var	Var	Var	Var	1	45x3½	Var
2-15	26000		2300	9.00/20	50-50		48	Var	T	4½	Var	Var	Var	Var	1	45x3½	Var
2-15	26000		2330	10.00/20	50-50		48	Var	T	4½	Var	Var	Var	Var	1	45x3½	Var
2-15	32000		2450	9.00/20	50-50		48	Var	T	4½	Var	Var	Var	Var	1	45x3½	Var
2-15	32000		2450	10.00/20	50-50		48	Var	T	4½	Var	Var	Var	Var	1	45x3½	Var
2-20	36000		2600	10.00/20	50-50		48	Var	T	5	Var	Var	Var	Var	1	48x3½	Var
2-20	36000		2600	10.00/22	50-50		48	Var	T	5	Var	Var	Var	Var	1	48x3½	Var
2-20	50000		2850	10.00/22	50-50		48	Var	T	5	Var	Var	Var	Var	1	48x3½	Var
2-20	50000		2850	10.00/22	50-50		48	Var	T	5	Var	Var	Var	Var	1	48x3½	Var
2-20	50000		2850	11.00/20	50-50		48	Var	T	5	Var	Var	Var	Var	1	48x3½	Var
2-20	50000		2850	11.00/22	50-50		48	Var	T	5	Var	Var	Var	Var	1	48x3½	Var
SUPER LOAD BOOSTER																	
LB34	34000				50-50		48	Var	Var	Var	Var	Var	Var	Var	2	48x3½	Var
TANDEM TRAC																	
BTT All makes	18000		1000**	11.00/22	50-50		50	Var	T	5	MAorVA	CA	16½x5		2	y	Var
TRUCKTOR																	
T-11 (Single)	11000			8.25/20				Own	SR	3	HV	CA	16x3½	236	4	56	
T-14 (Single)	14000			9.00/20				Own	SR	3¼	HV	CA	16x5	340	4	56	
T-16 (Single)	16000			10.00/20				Tim	T	5	MA	CA	16½x6	438	4	56	
T-16 (Single)	16000			11.00/20				Tim	T	5	MA	CA	16½x7	512	4	56	
T-20 (Single)	20000			11.00/22				Tim	T	5½	MA	CA	1847	450	4	56	
T-25 (Single)	25000			12.00/24				Own	Tim	SR-T	6	MA	CA	1847	450	4	56
T-16 (Single air suspension)	16000			10.00/20				Tim	T	5	MA	CA	16½x6	438	Gen	eral Air Spring	
T-20 (Single air suspension)	20000			11.00/22				Tim	T	5½	MA	CA	16½x6	438			
TT-14 (Tandem)	28000			9.00/20	50-50		48	Own	SR	3	NR	CA	16x5	340	6	48½	
TT-16 (Tandem)	32000			10.00/20	50-50		50	Tim	T	5	MA	CA	16½x6	438	6	48½	
TT-16 (Tandem)	36000			11.00/20	50-50		50	Tim	T	5	MA	CA	16½x6	438	6	48½	
TT-16 (Tandem air suspension)	32000			10.00/20	50-50		50	Tim	T	5	MA	CA	16½x6	438	Gen	eral Air Spring	
TT-16 (Tandem air suspension)	36000			11.00/20	50-50		50	Tim	T	5	MA	CA	16½x6	438	Gen	eral Air Spring	
TT-16 (Tandem spread axles)	38000		3560	11.00/20	50-50		108½	Tim	T	5	MA	CA	16½x6	438	6	48½	

Mud Guard Requirements

TWENTY-FIVE STATES now include some form of "mud flap requirement among their motor vehicle regulations. In general, **the basic requirement is that rear wheels must be protected at the top and rear by the vehicle's body or by metal protectors, flexible flaps or some other protective means which will minimize spray or splash to the rear of the vehicle, and which are at least as wide as the tires they protect.**

In the accompanying chart, if the general requirement mentioned above is called for, it is shown under the "Requirements" column by the word "Basic." Where there are additional requirements, they are listed by number in the chart and may be found under the appropriate reference note.

Under the heading "Vehicles Affected," the word "All" includes trucks, tractors, trailers, semi-trailers, buses and pole trailers. Where necessary, the affected vehicles are described in greater detail.

State	Vehicles Affected	Requirements	Exemptions
Cal.	All	Basic	None
Conn.	All over 3 tons GVW	Basic	Farm Vehicles. Others requiring complete wheel freedom.
Ga.	All	Basic. See Note 1.	None
Idaho	All	Basic	None
Ill.	All, outside city or corporate limits	Basic. See Note 2.	Passenger cars
Maine	All	Basic	None
Mass.	All	Basic	Passenger cars
Mich.	Commercial vehicles	Basic. See Note 3.	None
Minn.	Trucks, trailers, semis	Basic. See Note 4.	Pole trailers. Rear end dump trucks
Miss.	All over 10 tons, gross	Basic. See Note 5.	Pole trailers, dump trucks and trucks carrying an "F" license
Nebr.	All new vehicles purchased after Jan. 1, 1956	Basic	None
N. H.	All	Basic, as approved by Commissioner of Motor Vehicles	Passenger cars
N. J.	All over 3 tons, gross	Basic	Pole trailers. Others requiring complete wheel freedom
N. Y.	All	Basic	Passenger vehicles
Ohio	All over 3 tons, gross	Basic. See Note 4.	None
Okla.	All	Basic	Animal-drawn vehicles. Farm tractors travelling less than 20 mph.
Ore.	All	Basic. See Note 6.	Truck chassis not equipped for hauling a load
Pa.	All commercial vehicles	Basic. See Note 7.	None
R. I.	All over 3 tons, gross	Basic	Vehicles requiring complete wheel freedom
Tenn.	All with carrying capacity of over 3000 lb	Basic. See Note 8.	Farm vehicles. Vehicles used exclusively for hauling logs
Texas	Vehicles with 4 or more tires on rear axle operated on wet highways.	Basic. See Note 9.	Pole trailers
Utah	All commercial vehicles	Basic. See Note 10.	Buses
Va.	All with carrying capacity over 22,500 lb	Basic	Vehicles used exclusively for hauling logs
Wash.	All	Basic	None
Wisc.	Tractor-type vehicles	Basic. See Note 4.	None

REFERENCE NOTES

1. Ground clearance under any loading conditions must not be more than 1/5 of the distance from the center of the rearmost axle to the center of the flaps.

2. Splash guards on new motor vehicles after Sept. 1, 1955, those used as replacements on vehicles after that date, and those on all vehicles after Jan. 1, 1957 must meet the following requirements: The guard must contour the wheel, the inside of the guard paralleling the tire tread surface both laterally and across the wheel for the top 90 deg of the rear 180 deg of the wheel, and the downward extension of the curved surface must extend to not more than 10 in. from the ground. The splash guards must be wide enough to cover the full tread of the tires protected, and must be close enough to the tread surface to control the side throw or wash of the bulk of the thrown material and keep such bulk within a tangent of not over 15 deg, measured from a base line formed by the top height of the wheel. The splash guards may be made of flexible material, but must maintain their general position under all conditions of operation. Motor vehicles whose construction does not require splash guards, and motor vehicles in-transit and capable of using only temporary splash guards approved by the State Highway Police, are exempt from these requirements.

3. Guards must bar water or other road surface substances thrown from the rear wheels at tangents exceeding 22½ deg measured from the road surface. If flap type device is used, it must not have attached any type of lamp, reflective material or reflecting buttons, nor can the device extend beyond the maximum width limit of the vehicle.

4. Ground clearance cannot be more than 1/5 of the horizontal distance from the center of the rearmost axle to the flap under any conditions of loading or operation and must be at least as wide as the tires. If rear wheels are not covered at the top by fenders, protective means must extend at least to the center of the rearmost axle.

5. Ground clearance cannot be more than 1/5 of the distance from the center of the rearmost axle to the center of the flaps under any conditions of loading. Commissioner of Public Safety may exempt vehicles whose design and construction is such that the purpose of the act cannot be met. If rear wheels are not covered at top, flaps must extend to a point directly above the rearmost axle. Lamps or wiring must not be attached to protectors or flaps.

6. Trucks equipped with a body and buses, bus trailers, semitrailers and trailers must have the rear wheels guarded from a point above and forward of the center of the tire over and to the rear of the wheel to a point not more than 10 in. above the highway surface when the vehicle is empty. Trucks not equipped with bodies must have guards behind the rear wheels downward from a point not lower than halfway between the center of the wheels and the top of the tires on such wheels to a point not more than 10 in. from the highway surface when the vehicle is empty. All other motor vehicles must have guards behind all wheels, from a point above and forward of the center of the tire over and to the rear wheel to a point not more than 20 in. above the highway surface.

7. Device must bar water or other road surface substances thrown from the rear wheels at tangents exceeding 22½ deg measured from the road surface and passing in a straight line to the rear of the vehicle.

8. Ground clearance cannot be greater than 1/5 the horizontal distance from the center of the axle to the flap. Devices must be of a type approved by the Commissioner of Safety. Lamps, wiring or reflectorized material must not be attached to the flaps.

9. Guards or flaps must extend to within six in. of the highway surface.

10. Ground clearance cannot be more than ½ of the diameter of the rear axle wheel or not more than 1/5 of the distance from the center of the axle to the flap under any condition of loading. If rear wheels are not covered at the top, the protective means must extend to at least the center line of the rearmost axle.

1956 BUS SPECIFICATIONS—

Line Number	BUS MAKE AND MODEL	GENERAL: Passenger Rating	GENERAL: Type (City Service, Parlor, etc.)	GENERAL: Standard Wheelbase (In.)	GENERAL: Overall Length (In.)—Bumper to Bumper	GENERAL: Inside Length (In.)—Passenger Compartment	GENERAL: Tread (In.)—Front and Rear	GENERAL: Complete Vehicle Weight—Dry (Lb.)	GENERAL: Standard Tire Size (In.)—Front and Rear	ENGINE: Make and Model	ENGINE: Cycle and Fuel	ENGINE: Location	ENGINE: Number of Cylinders—Bore and Stroke (In.)	ENGINE: Displacement (Cu. In.)	ENGINE: Rated Horsepower (A.M.A.)	ENGINE: Maximum Brake Hp. at Governed R.P.M.	ENGINE: Maximum Net Torque (Lb. Ft.) at Specified R.P.M.	ENGINE: Compression Ratio—to 1	ENGINE: Compression Pressure—(Lb.) at Specified R.P.M.	ENGINE: Valve Arrangement	Oiling System: Pressure to—
1	Beck Airglide Mainliner	37	IC	228	420	358	80¼–71½	18500	11.00/20	Cum JT-6	4-D	R	6-4½x5	401	40.6	175–2500	400–1700	15.5		I	abcd
2	Semi-Deck & Half	41	IC	228	420	376	80¼–72	20000	11.00/20	Cum JT-6	4-D	R	6-4½x5	401	40.6	175–2500	400–1700	15.5		I	abcd
3	Deck & Half	45	IC	256	480	438	80¼–72	26000	11.00/22	Cum NRT-6	4-D	R	6-5½x6	743	63.1	300–2100	800–1400	12.0		I	abcd
4	Crown A-501-10	37–41	IC	200½	384	353½	80½–72	18500	10.00/20	Int 501	4-G	UF	6-4½x5¼	501	48.6	212–3000	445–1400	6.50		I	acd
5	A-590-10	33–41	IC	200½	384	353½	80½–72	18500	10.00/20	HS 590BH1	4-G	UF	6-5x5	590	60.0	232–2800	490–1600	6.70		I	acdef
6	A-501-11	37–45	IC	232	419½	388	80½–72	19200	11.00/20	Int 501	4-G	UF	6-4½x5½	501	48.6	212–3000	445–1400	6.50		I	acd
7	A-590-11	37–45	IC	232	419½	388	80½–72	19200	11.00/20	HS 590BH1	4-G	UF	6-5x5	590	60.0	232–2800	490–1600	6.70		I	acdef
8	A-779-11	37–45	IC	232	419½	388	80½–72	20500	11.00/22	HS 190-2	4-G	UF	6-5½x6	779	29.8	246–2400	640–1400	6.10		I	acdef
9	AD-743-11	37–45	IC	232	419½	388	80½–72	21200	11.00/22	Cum NHHB600	4-D	UF	6-5½x6	743	27.0	210–2100	570–1600	15.5		I	abcd
10	Fitzjohn FTG Cityliner	29–31	CS	155¼	323¼	277	81¾–74	12000	8.25/20	Her JXLD	4-G	TR	6-4x4½	339	38.4	131–3000	272–1400	6.20		L	abcdg
11	FTG Cityliner	29–31	CS	155¼	323¼	277	81¾–74	12400	8.25/20	Her WXLD	4-G	TR	6-4½x4¾	404	43.3	140–2600	316–1400	6.50		L	ac
12	FTG Cityliner	33–35	CS	182½	351	304¾	81¾–74	12750	9.00/20	Her JXLD	4-G	TR	6-4x4½	339	38.4	131–3000	272–1400	6.20		L	abcdg
13	FTG Cityliner	33–35	CS	182½	351	304¾	81¾–74	13150	9.00/20	Her WXLD	4-G	TR	6-4½x4¾	404	43.3	140–2600	316–1400	6.50		L	ac
14	FTD Cityliner	33–35	CS	182½	351	304¾	81¾–74	13800	9.00/20	Cum JBS600	4-D	R	6-4½x5	401	40.8	150–2500	360–1500	15.5		I	abcd
15	FTG Cityliner	37–39	CS	210¼	378¼	332½	81¾–74	13900	10.00/20	Her WXLD	4-G	TR	6-4½x4¾	404	43.3	140–2600	316–1400	6.50		L	ac
16	FTD Cityliner	37–39	CS	210¼	378¼	332½	81¾–74	14550	10.00/20	Cum JBS600	4-D	R	6-4½x5	401	40.8	150–2500	360–1500	15.5		I	abcd
17	FSG Suburbanliner	29	Sub	155¼	325¼	277	81¾–74	12500	8.25/20	Her JXLD	4-G	TR	6-4x4½	339	38.4	131–3000	272–1400	6.20		L	abcdg
18	FSG Suburbanliner	29	Sub	155¼	325¼	277	81¾–74	12900	8.25/20	Her WXLD	4-G	TR	6-4½x4¾	404	43.3	140–2600	316–1400	6.50		L	ac
19	FSG Suburbanliner	33	Sub	182½	351	304¾	81¾–74	13250	9.00/20	Her JXLD	4-G	TR	6-4x4½	339	38.4	131–3000	272–1400	6.20		L	abcdg
20	FSG Suburbanliner	33	Sub	182½	351	304¾	81¾–74	13650	9.00/20	Her WXLD	4-G	TR	6-4½x4¾	404	43.3	140–2600	316–1400	6.50		L	ac
21	FSG Suburbanliner	37	Sub	210¼	378¼	332½	81¾–74	14400	10.00/20	Her WXLD	4-G	TR	6-4½x4¾	404	43.3	140–2600	316–1400	6.50		L	ac
22	Roadrunner	33	P	201	384	324	80¼–71½	17650	10.00/20	Wau 140GKB	4-G	R	6-4½x5½	525	48.6	177–2600	425–1000	6.50		I	abcdfg
23	Roadrunner	33	P	201	384	324	80¼–71½	17750	10.00/20	Cum JBS600	4-D	R	6-4½x5	401	40.8	150–2500	360–1500	15.5		I	abcd
24	Roadrunner	37	P	237	420	360	80¼–71½	18650	11.00/20	Wau 140GKB	4-G	R	6-4½x5½	525	48.6	177–2600	425–1000	6.50		I	abcdfg
25	Roadrunner	37	P	237	420	360	80¼–71½	18750	11.00/20	Cum JT6B	4-D	R	6-4½x5	401	40.8	165–2500	400–1800	15.5		I	abcd
26	Flxible 218B7	37	IC	218	410¾	338	80⅛–69¾	15100	9.00/20	Bui FB320	4-G	R	6-3⅞x4⅛	320	37.8	144–3400	278–2200	6.30		I	acdf
27	182B1	25	IC	182	374¾	264	80⅛–69¾	14600	9.00/20	Bui FB320	4-G	R	6-3⅞x4⅛	320	37.8	144–3400	278–2200	6.30		I	acdf
28	218F1	29	IC	218	410¾	301	80⅛–69¾	15610	9.00/20	Fag FTC180	4-G	R	6-4¼x4¼	404	43.3	162–2800	362–1600	7.50		I	abcd
29	218JBS1	29	IC	218	410¾	300	80⅛–69¾	15455	9.00/20	Cum JBS600	4-D	R	6-4½x5	401	40.6	150–2500	360–1400	15.5		I	abcd
30	218GM1	29	IC	218	410¾	300	80⅛–69¾		9.00/20	GM 4-71	2-D	R	4-4¼x5	284	28.9	150–2100	387–1600	16.0		I	abcd
31	228JTI-56	37	IC	228	419½	401½	80½–71½	18200	10.00/20	Cum JT600	4-D	R	6-4½x5	401	43.3	175–2500	405–1800	15.5		I	abcd
32	228FI-56	37	IC	228	419½	401½	80½–71½	18200	10.00/20	Fag FTC200	4-G	R	6-4⅝x5	451	45.9	200–2800	400–1600	7.28	155–250	I	abcd
33	Flxible-Twin Coach FT-30	36	CS	190¾	365	340	80⅝–72	14400	10.00/20	Fag FTC-180	4-G	UF	6-4¼x4⅝	404	43.3	180–2800	360–1600	7.50		I	.....
34	FT-33	40	CS	222	403	378	80⅝–72	15800	10.00/20	Fag FTC-200	4-G	UF	6-4⅝x5	451	45.9	200–2800	400–1600	7.28		I	.....
35	FT-35	44	CS	232½	420	402	80⅝–72	16600	10.00/20	Fag FTC-200	4-G	UF	6-4⅝x5	451	45.9	200–2800	400–1600	7.28		I	.....
36	FT-40	52	CS	274⅜	480	462	80⅝–72	18500	11.00/20	Fag FTC-210	4-G	UF	6-4½x5	477	48.6	210–2800	480–1600	7.09		I	.....
37	FT-40DL	52	CS	274⅜	480	462	80⅝–72	18500	11.00/20	Fag FLDH600	4-D	UF	6-4½x5½	597	55.5	160–2225	455–1200	15.8	450–300	I	abcd
38	G.M.C. TGH3102	31	CS	180½	325⅝	287	81¼–75¼	9635	8.25/20	Own 270	4-G	TR	6-3⅜x4	270	34.3	124–3200	232–1000	7.50	165–1000	I	abcdfgh
39	TDH3714	37	CS	210½	369½	336	79¼–70½	16075	10.00/20	Own 4-71	2-D	TR	4-4¼x5	284	28.9	143–2100	375–1600	17.0	385–500	I	abcdfgh
40	TDH4512	45	CS	238¾	420	389	78⅞–70½	17170	10.00/20	Own 6-71	2-D	TR	6-4¼x5	426	43.4	172–2000	472–1200	17.0	385–500	I	abcdfgh
41	TDM4515	45	Sub	238¾	420	389	78⅞–70½	19060	10.00/20	Own 6-71	2-D	TR	6-4¼x5	426	43.4	211–2000	574–1600	17.0	385–500	I	abcdfgh
42	TDH5105	51	CS	281¾	477	441	87¼–76½	18655	11.00/20	Own 6-71	2-D	TR	6-4¼x5	426	43.4	172–2000	472–1200	17.0	385–500	I	abcdfgh
43	TDH5106	51	CS	281¾	477	441	80½–70½	18445	11.00/20	Own 6-71	2-D	TR	6-4¼x5	426	43.4	172–2000	472–1200	17.0	385–500	I	abcdfgh
44	TDM5108	51	Sub	281¾	477	441	80½–70½	20625	11.00/20	Own 6-71	2-D	TR	6-4¼x5	426	43.4	211–2000	574–1600	17.0	385–500	I	abcdfgh
45	PD4104	41	P	261	420	390	78⅞–70½	19310	11.00/20	Own 6-71	2-D	TR	6-4¼x5	426	43.4	211–2000	574–1600	17.0	385–500	I	abcdfgh
46	Mack C41	41	CS	237½	396	366⅝	79⅛–70⅞	17500	10.00/20	Own END673	4-D	TR	6-4⅞x6	672	57.0	170–2100	480–1200	16.6	530–1000	I	acdeh
47	C47	45	CS	261½	420	390⅝	79⅛–70⅞	18200	10.00/20	Own END673	4-D	TR	6-4⅞x6	672	57.0	170–2100	480–1200	16.6	530–1000	I	acdeh
48	C49*	49	CS	289½	472½	443	79⅛–70⅞	19200	11.00/20	Own END673	4-D	TR	6-4⅞x6	672	57.0	170–2100	480–1200	16.6	530–1000	I	acdeh
49	Southern Coach S-45-DHC	45	CS	232⅞	419	404	80¼–72	18714	11.00/22	Cum NHHB600	4-D	UF	6-5½x6	743	63.0	200–2100	535–1200	15.5		I	abcdf
50	S-38-DHL	36	CS	194½	356½	341½	80¼–71½	14460	10.00/20	Fag FLDH600	D	UF	6-4½x5½	597	55.2	160–2400	452–1200	15.8		I	acdfgi
51	S-41-HF	41	CS	221⅝	391½	377½	80¼–72	15300	11.00/20	Fag FTC180	4-G	UF	6-4¼x4¾	404	43.4	180–2400	390–1600	7.50		I	acdf
52	S-50-DHC	50	CS	275⅝	461½	447	86⅛–72	21310	11.00/22	Cum NHHB600	2-D	UF	6-5½x6	743	63.0	200–2100	535–1200	15.5		I	abcdf

ABBREVIATIONS

‡—Two used.
‡—Torque converter.
†—Generator, Delco-Remy; starter, Auto-Lite.
*—Also available with ENDT-673 supercharged engine.
†—Front, 14½; rear, 15.
•—Hundred rpm.
^—Air suspension.
a—Main bearings.
b—Wrist pins.
c—Connecting rods.
d—Camshaft.
e—Accessory drive.
f—Valve lifters or rocker arms and shafts.
g—Timing gears or chain.
h—Air compressor.
i—Balancer shaft.
A—Air.
AL—Electric Auto-Lite Co.
BB—Borg & Beck.
Bos—American Bosch Div.
Bui—Buick Motor Div.
Ce—Centrifugal.
CIC—City and intercity service.
Cla—Clark Equipment Co.
CS—City service.
Cum—Cummins Engine Co.
D—Diesel fuel.
Do—Downdraft.
DR—Delco-Remy Div.
Ds—Drive shaft.
Fag—Fageol.
Fu—Fuller Mfg. Co.
G—Gasoline.
Gem—Gemmer Mfg. Co.
GH—G. M. Hydramatic.
GM—General Motors Corp.
H—Hydraulic.
Her—Hercules Motor Corp.
Hol—Holley Carburetor Co.
HS—Hall Scott.
I—Valve in head.
IC—Intercity service.
If—Infinite.
Int—International Harvester Co.
L—Valves in side.
LD—Leece-Neville (alternator); Delco-Remy (starter).
Lg—Long Mfg. Div.
LN—Leece-Neville Co.
LR—Lipe Rollway Corp.
M—Mechanical.
Mal—Mallory.
Op—Optional.
P—Parlor.
R—Rear.
Ro—Ross Gear and Tool Co.
Roo—Roosa-Master.
Sag—Saginaw Steering Gear Div.
Spi—Spicer Mfg. Div.
Str—Stromberg Carburetor Div.
Su—Suction.
Sub—Suburban service.
Tim—Timken Detroit Axle Co.
TR—Transverse in rear.
UF—Under floor.
Up—Updraft.
V—Vacuum.
Var—Variable.
Wau—Waukesha Motor Co.
Zen—Zenith Carburetor Div.

City and Intercity Types

FUEL SYSTEM			ELECTRICAL SYSTEM			Gov-ernor			TRANSMISSION				Uni-versals		REAR AXLE			BRAKES					SPRINGS				RUNNING GEAR			
Carburetor or Injector Pump					Battery													Service			Hand		Front		Rear					
Make and Type	Size (In.)	Tank Capacity (Gal.)	Ignition System—Make	Generator and Starter—Make	Voltage and Amp. Hours Capacity	Type	Max. Governed Speed—M.P.H.	Clutch—Make and Size (In. diam.)	Make	No. of Forward Speeds	Low Speed Ratio—to 1	Type	Number	Size of Series	Make and Model	Standard Gear Ratio—to 1	Type of Applicator	Total Lining Area (Sq. In.)	Drum Diam. (In.)	Operates on—	Total Lining Area (Sq. In.)	No. of Leaves	Length and Width (In.)	No. of Leaves	Length and Width (In.)	Front Axle—Make	Steering Gear—Make	Outside Diameter of Min. Turn. Circle (Ft.)	Line Number
Cum		120		LN	12-155	M	68	LR 15	Fu	4	4.43	M	2	1600	Tim L110	4.44	A		16½	Ds		△		△		Tim	Ro		1
Cum		150		LN	12-155	M	65	LR 15	Fu	4	4.43	M	2	1600	Tim Q110	4.62	A		16½	Ds		△		△		Tim	Ro		2
Cum		150		LN	12-155	M	65	Lg 17	Spi	4	5.19	M	2	1700	Tim R110	4.11	A		16½	Ds		△		△		Tim	Ro		3
Hol Do	1¼	70	DR	♦	12-158	Su	Var	LR 15	Fu	5	8.08	M	2	1600	Tim L110P	5.29	A	704	16½	Ds	65	11	50-4	17	60-4	Tim	Ro	70	4
Hol Do	1¼	70	DR	♦	12-158	Su	Var	Lg 15½	Fu	5	8.08	H	2	1700	Tim Q110P	4.63	A	704	16½	Ds	65	11	50-4	17	60-4	Tim	Ro	70	5
Hol Do	1¼	70	DR	♦	12-158	Su	Var	LR 15	Fu	5	8.08	M	2	1600	Tim L110P	5.29	A	704	16½	Ds	65	11	50-4	17	60-4	Tim	Ro	78	6
Hol Do	1¼	70	DR	♦	12-158	Su	Var	Lg 15½	Fu	5	8.08	H	2	1700	Tim Q110P	4.63	A	704	16½	Ds	65	11	50-4	17	60-4	Tim	Ro	78	7
Zen Up	2	70	DR	♦	12-158	V	Var	Lg 17	Fu	5	7.33	M	2	1700	Tim R110P	4.11	A	704	16½	Ds	65	12	50-4	18	60-4	Tim	Ro	78	8
Cum		70	AL	♦	12-158		Var	Lg 17	Fu	5	7.33	M	2	1700	Tim R110P	4.11	A	704	16½	Ds	65	12	50-4	18	60-4	Tim	Ro	78	9
Zen Up	1¼	60	DR	DR	12-150	Ce	53	BB 13	Cla	3	4.06	M	2	1600	Tim 56434W	6.16	A	586	14½	Ds	85	14	54-3	14	60-3	Tim	Ro	67	10
Zen Do	1¼	60	DR	LD	12-150	Ce	53	Lg 14	Cla	3	4.06	M	2	1600	Tim 56434W	6.16	A	586	14½	Ds	85	14	54-3	14	60-3	Tim	Ro	67	11
Zen Up	1¼	60	DR	DR	12-150	Ce	53	BB 13	Cla	3	4.06	M	2	1600	Tim 56434W	6.16	A	586	14½	Ds	85	14	54-3	14	60-3	Tim	Ro	65	12
Zen Do	1¼	60	DR	LD	12-150	Ce	53	Lg 14	Cla	3	4.06	M	2	1600	Tim 56434W	6.16	A	586	14½	Ds	85	14	54-3	14	60-3	Tim	Ro	65	13
Cum		60		LD	12-150♦	Ce	53	Lg 14	Cla	3	4.06	M	2	1600	Tim 56434W	6.16	A	586	14½	Ds	85	15	54-3	15	60-3	Tim	Ro	65	14
Zen Do	1¼	60	DR	LD	12-150	Ce	53	Lg 14	Cla	3	4.06	M	2	1600	Tim 56434W	6.16	A	586	14½	Ds	85	15	54-3	15	60-3	Tim	Ro	73¾	15
Cum		60		LD	12-150♦	Ce	53	Lg 14	Cla	3	4.06	M	2	1600	Tim 56434W	6.16	A	586	14½	Ds	85	15	54-3	15	60-3	Tim	Ro	73¾	16
Zen Up	1¼	60	DR	DR	12-150	Ce	53	BB 13	Cla	3	4.06	M	2	1600	Tim 56434W	6.16	A	586	14½	Ds	85	14	54-3	14	54-3	Tim	Ro	67	17
Zen Do	1¼	60	DR	LD	12-150	Ce	53	Lg 14	Cla	3	4.06	M	2	1600	Tim 56434W	6.16	A	586	14½	Ds	85	14	54-3	14	54-3	Tim	Ro	67	18
Zen Up	1¼	60	DR	DR	12-150	Ce	53	BB 13	Cla	3	4.06	M	2	1600	Tim 56434W	6.16	A	586	14½	Ds	85	14	54-3	14	54-3	Tim	Ro	65	19
Zen Do	1¼	60	DR	LD	12-150	Ce	53	Lg 14	Cla	3	4.06	M	2	1600	Tim 56434W	6.16	A	586	14½	Ds	85	14	54-3	14	54-3	Tim	Ro	65	20
Zen Do	1¼	60	DR	LD	12-150	Ce	53	Lg 14	Cla	3	4.06	M	2	1600	Tim 56434W	6.16	A	586	14½	Ds	85	15	54-3	15	54-3	Tim	Ro	77¾	21
Zen Do	1¼	142	LD	LD	12-150	Ce	68	Lg 14	Cla	4	4.88	M	2	1600	Tim L110	4.44	A	684	16½	Ds	137	△		△		Tim	Ro	71	22
Cum		142		LD	12-150♦	Ce	68	Lg 14	Cla	4	4.88	M	2	1600	Tim L110	4.44	A	684	16½	Ds	137	△		△		Tim	Ro	71	23
Zen Do	1¼	142		LD	12-150	Ce	68	LR 15	Cla	4	4.88	M	2	1600	Tim L110	4.44	A	684	16½	Ds	137	△		△		Tim	Ro	80	24
Cum		142		LD	12-150♦	Ce	68	LR 15	Cla	4	4.88	M	2	1600	Tim L110	4.44	A	684	16½	Ds	137	△		△		Tim	Ro	80	25
Str Do		80	DR	DR	12-160	Ce	63	Spi 13	Spi	5	4.62	M	2	1500	Tim H110	6.17	A	610	16½	Ds	45	12	52-3	15	56-3	Tim	Ro	72	26
Str Do		80	DR	DR	12-160	Ce	63	Spi 13	Spi	5	4.62	M	2	1500	Tim H110	6.17	A	610	16½	Ds	45	12	52-3	15	56-3	Tim	Ro	68	27
Hol Do		80	DR	DR	12-160	Ce	72	Spi 14	Spi	5	4.62	M	2	1500	Tim H110	5.28	A	610	16½	Ds	45	12	52-3	15	56-3	Tim	Ro	72	28
Cum		80	DR	DR	12-160	Ce	65	Spi 14	Spi	5	4.62	M	2	1500	Tim H110	5.28	A	610	16½	Ds	45	12	52-3	15	56-3	Tim	Ro	72	29
GM		80	DR	DR	12-160	Ce	66	Lg 15½	Spi	5	5.08	M	2	1500	Tim H110	4.62	A	610	16½	Ds	45	12	52-3	15	56-3	Tim	Ro	72	30
Cum		120		DR	12-160	Ce	67	Spi 14	Spi	5	4.50	M	2	1600	Tim L110	5.28	A	792	16½	Ds	45	△		△		Tim	Ro	62¾	31
Hol Do		120	DR	DR	12-160	Ce	64	Spi 14	Spi	5	4.50	M	2	1600	Tim L110	6.16	A	792	16½	Ds	45	△		△		Tim	Ro	62¾	32
Hol Do		80	DR	LD	12-160	Ce	28•	None	Spi‡		5.43	H	2	1600	Tim L110	6.16	A	844	16½	Ds	63	12	56-4	13	60-4	Tim	Ro	69	33
Hol Do		125	DR	LD	12-160	Ce	28•	None	Spi‡		5.43	H	2	1600	Tim Q110	6.16	A	844	16½	Ds	63	13	56-4	13	60-4		Ro	67½	34
Hol Do			DR	LD	12-160	Ce	28•	None	Spi‡		5.43	H	2	1600	Tim Q110	6.16	A	844	16½	Ds	63	12	60-4	13	64-4	Tim	Ro	69½	35
Hol Do			DR	LD	12-160	Ce			Spi‡		5.43	H	2	1600	Tim R110	6.16	A	844	16½	Ds	63	13	60-4	15	64-4	Tim	Ro	79½	36
Ros		125		LN	12-160	Ce	23•	None	Spi‡		5.43	H	2	1600	Tim R110	6.17	A	844	16½	Ds	63	13	60-4	15	64-4	Tim	Ro	79½	37
Zen Do	1½	60	DR	DR	12-150	Ce	52		GM	4	3.82	GH	2	1400	Cla R-1204	6.33	A	587	14½	Ds	28	10	52-3	11	59-3	Cla	Sag	66	38
Own		80		DR	12-175♦	Ce	46	Own 15	GM‡	If		H	2	1600	Tim 57620WX2	5.16	A	646	14½	Ds	69	△		△		Tim	Sag	70	39
Own		80		DR	12-175♦	Ce	48	Own 15	GM‡	If		H	2	1700	Tim 59620WX1	4.71	A	705	14½	Ds	104	△		△		Tim	Sag	78	40
Own		80		DR	12-175♦	Ce	61	Lg 17	Spi	4	4.38	M	2	1700	Tim 59620WX1	3.88	A	705	14½	Ds	104	△		△		Tim	Sag	78	41
Own		80		DR	12-175♦	Ce	45	Own 15	GM‡	If		H	2	1700	Tim 59621WX1	5.16	A	882	14½	Ds	104	△		△		Tim	Sag	82	42
Own		80		DR	12-175♦	Ce	45	Own 15	GM‡	If		H	2	1700	Tim 59620WX1	5.16	A	882	14½	Ds	104	△		△		Tim	Sag	81	43
Own		80		DR	12-175♦	Ce	58½	Lg 17	Spi	4	4.38	M	2	1700	Tim 59610WX1	4.13	A	882	14½	Ds	104	△		△		Tim	Sag	81	44
Own		100		DR	12-205	Ce	58½	Lg 17	Spi	4	3.88	M	2	1700	Tim 59600WX1	4.13	A	764	14½	Ds	125½	△		△		Tim	Ro	84	45
Bos	BB	75			12-200		21•	Spi 16	Spi‡	If		H	2	1700	Own RAS402	Var	A	784	15	Ds	139	13	62-3½	16	62-4	Own	Gem	69	46
Bos	BB	75			12-200		21•	Spi 16	Spi‡	If		H	2	1700	Own RAS402	Var	A	784	15	Ds	139	13	62-3½	16	62-4	Own	Gem	72	47
Bos	BB	75			12-200		21•	Spi 16	Spi‡	If		H	2	1700	Own RAS402	Var	A	843	15	Ds	139	12	62-4	15	62-4	Own	Ro	72	48
Cum		115		Op	12-168	Ce	41		16	Spi‡	If		H	2	1700	Tim R110WX8	6.83	A	786	16½	Ds	126	13	62-3½	16	70-4	Tim	Ro	84½	49
Ros		115		Op	12-168		41	Spi 14	Spi‡	If		H	2	1600	Tim L110P	6.16	A	622	16½	Ds	101	11	62-3½	12	70-4	Tim	Ro	71½	50
Hol Do		115	Mal	Op	12-168	Su	41	Spi 14	Spi‡	If		H	2	1600	Tim Q110P	6.83	A	685	16½	Ds	101	12	62-3½	14	70-4	Tim	Ro	80	51
Cum		115		Op	12-168	Ce	41	Spi 16	Spi‡	If		H	2	1700	Tim R110W	6.83	A	904	16½	Ds	126	△		△		Tim	Ro	82½	52

TONS TRANSPORTED IN INTERCITY SERVICE

For the Full Year 1955 as Compared to 1954

Region	Tons (in thousands) 1955	Tons (in thousands) 1954	% Change 1955 from 1954
New England	12,706	12,356	+ 2.8
Middle Atlantic	61,682	53,051	+16.3
Central	85,192	71,856	+18.6
Southern	27,434	23,741	+15.6
Northwestern	9,468	8,632	+ 9.7
Middlewestern	15,394	13,462	+14.4
Southwestern	21,148	17,294	+22.3
Rocky Mountain	8,960	8,427	+ 6.3
Pacific	23,288	21,339	+ 9.1
Total	265,273	230,188	+15.2

Fourth Quarter 1955 as Compared to Fourth Quarter 1954

Region	Tons (in thousands) 1955	Tons (in thousands) 1954	% Change 1955 from 1954
New England	3,770	3,308	14.0
Middle Atlantic	16,310	14,169	15.1
Central	22,856	19,092	19.7
Southern	7,410	6,455	14.8
Northwestern	2,517	2,206	14.1
Middlewestern	4,351	3,662	18.8
Southwestern	5,512	4,668	18.1
Rocky Mountain	2,264	2,150	5.3
Pacific	6,218	5,596	11.1
Total	71,205	61,307	16.1

Compiled by American Trucking Assns. from reports of ICC Class I Common and Contract Intercity Carriers of Property. It by no means represents TOTAL tonnage.

Vehicle Inspection Laws

By States and Cities Affected

SEVENTEEN states and the District of Columbia now require some form of vehicle inspection on a periodic basis. There are also seven cities (including three in Illinois) which have taken independent steps in this regard. All of them except the state of Rhode Island include trucks and trailers. In Rhode Island vehicles affected are limited to for-hire passenger carrying equipment.

The states are about equally divided between official inspection stations (operated by the state) and authorized garages which frequently include a fleet operator's own maintenance facility as a licensed inspection agency. Most of the cities provide public facilities.

	VEHICLES AFFECTED	EQUIPMENT INSPECTED	METHOD	FREQUENCY	FEE
STATES					
Colorado	All	All	Authorized stations	Note 1	50¢
Delaware	All	All	State inspectors	Note 2	None
District of Columbia	All	All	District inspectors	Annual	$1.00
Illinois, Note 3	Note 4	Note 5	Official testing stations	April, Oct.	Note 6
Maine	All	All	Authorized stations	April, Oct.	50¢
Massachusetts	All	Note 7	Official inspection stations	April, Oct.	50¢
Mississippi	All	Note 8	Official inspection stations	Note 9	50¢
New Hampshire	All	All	Authorized stations	May, Oct.	$1.00
New Jersey	All	Note 10	State inspectors	Semi-annually	50¢
New Mexico	All	Note 10	Official stations	Note 11	$1.00
New York, Note 12	All	Note 13	Official stations	Semi-annually	
Pennsylvania	Note 14	Note 15	Authorized stations	Note 16	Note 17
Rhode Island	Note 18			Note 19	$2.00
Texas	Note 20	Note 21	Official stations	Annually	$1.00
Utah	All	All	Authorized stations	Note 22	50¢
Vermont			Authorized stations	May, Oct.	$1.00
Virginia		Note 23	Official stations	Note 24	50¢
West Virginia	All	Note 10	Official stations	Note 25	$1.25
CITIES					
Chicago, Ill.	.....	.....	City inspection stations	Annually	None
Evanston, Ill.	.....	.....	City inspection stations	Semi-annually	None
Springfield, Ill.	.....	.....	Authorized stations	Semi-annually	50¢
Des Moines, Iowa	.....	.....	City testing stations	Varies	50¢
Omaha, Nebr.	All	.....	City inspection stations	.....	.....
Cincinnati, Ohio	.....	.....	City testing stations	.....	.....
Memphis, Tenn.	.....	.....	City testing stations	3 per year	.....

Source: National Highway Users Conference. Revised to March 15, 1956.

REFERENCE NOTES

1. First inspection when plates put on, second July 1.
2. Annually, during three months prior to expiration of registration.
3. In Illinois all trucks must be inspected and secure a "certificate of safety" prior to registration and semi-annually thereafter.
4. Trucks and buses except those owned or operated by a municipality or political subdivision having one million population.
5. Brakes, lights, horns, reflectors, mufflers, rear vision mirrors, safety chains, frame, axles, cab, body, wheels, steering apparatus, safety devices.
6. Fee is $1.00 or more, usually $1.00 per axle.
7. Brakes, lights, horn, muffler, steering gear, windshield, windshield cleaner, number plates and rear windows.
8. Brakes, lighting equipment, steering mechanism, horns, mirrors, windshield wipers and other equipment.
9. Annually or semi-annually, varies.
10. Mechanism, brakes and equipment.
11. At least twice, but not more than three times per year.
12. Effective December 1, 1956.
13. Brakes, lights, steering, tires, wheel alignment, glass, windshield wiper and horn.
14. Motor vehicles, trailers and semi's, except trailers and semi's of less than 1000 lb chassis and body weight.
15. Steering mechanism, brakes, lights, horns, warning devices, mirrors, windshield wipers.
16. Passenger cars: May 1-July 31, Nov. 1-Jan. 31; Commercial vehicles: Aug. 1-Oct. 31, Feb. 1-April 30.
17. Not set by law. Usually $1.00 to $1.50.
18. For-hire taxicabs, buses, jitneys.
19. Before registration, then periodically.
20. All vehicles except: trailers and semi's with gross weight of 4000 lb or less; farm machinery, tractors, and trailers; vehicles of factory model 1935 and earlier if not driven on federal or state highways.
21. Brakes, lighting equipment, horns, warning devices, mirrors and windshield wipers.
22. During May and October, dates set by Road Commission.
23. Mechanism and equipment.
24. Semi-annually, between May 1 and June 15 and between October 1 and November 15.
25. Annually, between July 1 and September 30.

Pro-Rata Registration

The chart at left spells out highlights of the basic provisions in states and cities affected. It is presented primarily for the benefit of fleet operators who have or who contemplate having vehicles registered in "foreign states or cities." After noting the basic provisions, it is suggested that complete details should be acquired from appropriate state or city authorities.

All of these regulations stem from the idea that periodic vehicle inspection will aid in accident reduction. Nearly all are based on the principles of the uniform code set down some years ago by the National Committee on Uniform Traffic Laws and Ordinances. A full copy of this code is obtainable without charge from the National Highway Users Conference, National Press Bldg., Washington, D. C. In the main, however, it is more concerned with the setting up of the system from the viewpoint of the state administrator rather than with the details of its operation.

CCJ's Truck Specifications

COMPILED FROM DATA SUPPLIED BY MANUFACTURERS

KEY TO DEFINITIONS

MAKE AND MODEL

Only Domestic Truck Models are listed.

OPTIONAL UNITS

For the express purpose of best fitting the truck to the individual job most of the models listed can be provided with optional engines, transmissions, axles, etc., and these models when so equipped are considered standard stock models.

CHASSIS LIST PRICE

The chassis list price applies to the minimum standard wheelbase with standard tires and standard equipment. All prices are F.O.B. factory. Chassis list price does not include the price of the Cab unless otherwise noted.

RECOMMENDED GROSS VEHICLE WEIGHT FOR NORMAL SERVICE

The Gross Weights published herewith are those supplied by manufacturers as their Recommended Gross Vehicle Weights for Normal Operating Conditions, and are based upon the Maximum Authorized Tire Size listed. In actual practice the manufacturer may either increase or decrease the gross vehicle weight rating when either favorable or unfavorable operating conditions are involved. Since the proper performance of a motor truck depends upon many factors, including grades, road conditions, etc., the gross weights that a manufacturer is prepared to recommend will vary with particular conditions, and the manufacturer's own standard of safety factors. Specific recommendations, therefore, should be obtained from the manufacturer's representative.

CHASSIS WEIGHT

The chassis weight listed includes the weight of the minimum standard wheelbase chassis, with cowl, with standard tires, with standard equipment, with crankcase and cooling system full, and 5 gallons of fuel in the tank. It does not include the weight of the Cab. This applies to C.O.E. as well as conventional chassis types. Exceptions are noted.

STANDARD TIRE SIZE

The standard tire size listed is that which is included in the Chassis List Price.

MAXIMUM AUTHORIZED TIRE SIZE

The tire size listed in this column is the maximum size recommended by the manufacturer of the chassis for the Gross Vehicle Weight for Normal Operating Conditions. It is furnished at extra cost, if it differs from the standard size. Dual rears are understood; exceptions noted.

MINIMUM STANDARD WHEELBASE

The minimum standard wheelbase is the so-called standard wheelbase on which the Chassis List Price is based.

MAXIMUM STANDARD WHEELBASE

The maximum standard wheelbase is the extreme end of the standard range of wheelbases offered by the chassis maker.

MAXIMUM BRAKE HP.

Maximum Brake Horsepower at Given R.P.M. is actual dynamometer reading without accessories.

GEAR RATIO RANGE

Gear Ratio Range in High—Ratios within the range given are available at no extra cost. Exceptions are noted.

TRACTORS

Unless given the designation (N)— meaning not available as a tractor—all standard models may be assumed to be available as tractors. Exclusively Tractor models are designated (T).

KEY TO ABBREVIATIONS

MAKES—ALL

B—Bendix.
BL—Brown-Lipe.
Bu or Bud—Buda.
BW—Bendix-Westinghouse.
C—Chevrolet.
Cl or Cla—Clark.
Con—Continental.
Cu or Cum—Cummins-Diesel.
Eat—Eaton.
F—Ford.
Fu—Fuller.
G-H—Goodyear-Hawley type.
H—Hotchkiss.
Her—Hercules.
HS—Hall-Scott.
Int—International Harvester.
L—Lockheed.
LeR—LeRoi.
LH—Lockheed front, Wagner "hi-Tork" rear.
LT—Lockheed type front Timken rear.
LW—Lockheed front, Wisconsin rear.
M—Midland.
N.P.—New Process.
O or Ow—Own.
Op or Opt—Optional.
Shu—Shuler.
Spi—Spicer.
T or Tim—Timken-Detroit Axle Co.
Tw—Timken-Detroit—Westinghouse.
TW—Timken-Detroit—Wisconsin.
Var—Variable.
WG—Warner Gear.
Wau—Waukesha.
W or Wis—Wisconsin.
WE—Wagner Electric.
Wg—Wagner "hi-Tork."
We—Westinghouse.
WW—Westinghouse or Wagner

WHEELS DRIVEN

2F—Forward unit of Rear Axle Group.
2R—Rear Unit of Rear Axle Group.
4R—Forward and rear units of Rear Axle Group.
6—All wheels.

BRAKES—SERVICE

Location

4—Four Wheels, front and rear.
4r—Four Wheels, rear only.

Type

I—Internal.
X—External.

Operation

A—Air.
H—Hydraulic.
V—Vacuum.
D or Dp—Dual Primary.

BRAKES—HAND

Location

C—Center of double propeller shaft.
2—Rear wheels.
4—Four wheels.
6—Six wheels.
P—Back of Power Divider.
J—Jackshaft.
T—Transmission.
F—Driveshaft.

Type

D—Tru-Stop disk.
I—Internal.
M—Mechanical.
X—External.
PD—Two drums on rear of power divider.
F—Mechanical, foot operated

BRAKE DRUMS

Material

a—Cast alloy iron.
A—American Car Foundry
c—Cast iron.
Cc—Composite Front, Cast Iron in rear.
Ce—Centrifuse.
Ci—Copper iron.
Co—Composite.
CX—Front, centrifugal cast; rear, composite
D—Dayton.
E—Ermalite.
G—Gunite.
N—Nickel iron.
S—Steel.

(Where a combination of any of the above is used, the first reference mark applies to the front and the second to the rear drums.)

FRAME

Type

C—Channel.
T—Channel tapered front and rear.
L—Channel reinforced with liner.
B—Channel reinforced with both liner and fishplate.
P—Channel reinforced with plate.
TL—Channel tapered front and rear reinforced with liner.
D—Drop Center.
Tf—Tapered front.
A—Straight section sidemembers, lined with oak inserts.
Z—Reinforced (X) member frame, box type sections.
BG—Box girder.
H—Heat treated.

REAR AXLE

Final Drive and Type

B—Bevel.
CD—Chain Drive.
F—Full-floating.
H or Hy—Hyphoid.
d—Dual range axle.
2—Double Reduction.
S—Spiral bevel
W—Worm
¾—Three Quarters Floating.
½—Semi-Floating.
T—Torque Tube.

GEAR RATIOS

(**) Only one ratio.

Drive and Torque

H—Hotchkiss (springs).
R—Radius Rods.
L—Parallel Torque Rods.
T—Torque Arm.

GOVERNOR STANDARD

Y—Yes.
N—No.

KEY TO REFERENCES

c.f.—Cab Forward design.
c.o.e.—Cab-Over-Engine design.
(D)—Diesel-engine equipped.
(T)—Designed for tractor use only.
(C)—Ford or Chevrolet Models.
(R)—Remanufactured Fords.
^—Denotes "Includes Cab" when used with weights or prices.

AVAILABLE

*—Conventional or C.O.E. available.
†—Air brakes available.
—Two or three speed auxiliary transmission available.
△—Two speed rear axle available.

CHEVROLET

▼—Includes spare tire, full fuel tank and cooling system.
■—9.22.5 front tires are required when 10.22.5 dual rears are used.
‡—Trademaster V-8 engine available.
°—Thriftmaster Heavy-Duty engine available.
††—Turbo-Fire 162, 170, 205 engines available.
‡‡—Taskmaster V-8 engine available.
••—5-speed transmission available.
°°—Powermatic available.
***—Front, 2.30 x .702; rear, 2.30 x 1.16.
^^—"Jobmaster" engine optional.
¶—Overdrive optional.
♦♦—Theoretical I.D. (journal diameter plus clearance) front, 2.6856; front center, 2.7166; rear center, 2.7478; rear, 2.7788. Total effective length (overall length minus chamfers) 4.127.
°—Turbo-Fire V-8 optional.
△—7.17.5 D optional.
△△—7.22.5 front tires are required when 8.22.5 dual rears are used.
♦—8.22.5 front tires are required when 9.22.5 dual rears are used.
●—17000 Max. GVW when 8.22.5 front tires and 9.22.5 dual rears are used.
□—10.22.5 front tires required when 11.22.5 dual rears are used.
▲—22000 GVW when 8.22.5 front and dual rears are used.
°°—7.17 available.
‡—7.17 SF available.
▶—Increased lining area used with 7.17 SF axle.
§§—9½x3½x3½ P type frame available.
‡‡—Front, 2.69x1.06; rear, 2.78x1.19.
▼▼—Front, 2.50x1.25; rear, 2.50x1.77.
‡—Powerglide optional.
†—18000 GVW available with optional heavy duty equipment.
§—Synchro-mesh 3-speed H.D. optional.
ć—4-speed synchro-mesh transmission optional.
••—4.11 available with optional overdrive; 3.55 available with optional powerglide.
ć—7.20 available.
□□—Two-speed rear axle available.
♦—3400,3500 and 3700 TM brakes as options.
♦—Hydramatic available.
‡—4.11 available with optional overdrive.

COLEMAN

*—11.00-22 also available.
■—Fu5A65 or Spicer 6352 also available.
†—Cum HRB600 also available with horsepower of 165-180D.

DODGE

●—Two speed rear axle available.
△—Front only; rear, 9.22.5.

DUPLEX

‡—Torque Divider, Timken T70-2 speed.

FABCO

♦♦—see same footnote under Chevrolet.
*—With 2-speed transfer case.
RC—Chevrolet axle remanufactured.
RF—Ford axle remanufactured.

FORD

▲—Courier 176-hp engine with Fordomatic.
††—F-350, 9800 lbs. G.V.W. with dual wheels.
■—F-600, C-600, B-600, 158-hp, and 168-hp (governed) H.D. Power King engines also available.
♦—F-700, C-700, B-700, 168-hp Power King engine also available.
*—T-700, 302 cubic inch Cargo King engine also available.
♦—F-750, C-750, 186-hp Cargo King engine also available.
●—F-800, C-800, F-900, C-900, 200-hp Cargo King engine also available.
••—F-700, F-750, B-700, B-750, C-700, C-750, only one ratio available.
▼—B-500 School Bus (cowl to axle dimension).
△—B-600 School Bus (cowl to axle dimension) 194 in. for 220 in. wheelbase.
ć—F-350 Parcel Delivery (cowl to axle dimension) 106 in. for 122 in. wheelbase.
†—F-500, 7⅞ in. x 2½ in. x ¼ in. frame standard on 130 in. wheelbase; 9¼ in. x 2½ in. x ¼ in. frame optional on 130 in. wheelbase, standard on 154 in. wheelbase.

FWD

†—Transport tractors with one man cab beside the engine.
▲—23 PT rear axle is a driving axle plus a trailing axle.
*—Model available in c.o.e.

KENWORTH

♦♦—Timken T13129 PA Trailing Axle.
†—14.00.24, front; 16.00/24, rear.
‡—Optional transmission.
●—C.O.E. optional.
*—One man cab.
▲—Torque converter plus Torquematic transmission optional.
■—Cab beside engine optional.
♦—Both C.O.E. and cab beside engine optional.
††—14.00/24 front; 18.00/25 rear.
••—Cummins NHRBSID 600.
‡‡—Allison TCL 654 plus TG 607.

NAPCO

*—NAPCO—Federal Truck Div., Northwestern Auto Parts Company (Chevrolet 4-wheel drive conversion).
♦♦—See same footnote under Chevrolet.

OSHKOSH

▲—Includes cab.
■—1091 cu. in.
°°—Hydraulic coupling optional.
△—Dependent upon engine.

REO

♦—Model 331-OA and 331-OA LPG engines can be furnished.
♦—Two speed axle available.
▲—Plus full outer channel, 9¼x3¼x¼.
*—Buda 6DT8-468 diesel engine available.
‡—Model 255-OA-LPG or 292-OA engine can be furnished.
●—Front only; rear, 11.22.5.
†—Front only; rear 10.22.5.
‡—OH-160 or OH-160 LPG engine can be furnished.
■—OH-160LPG engine can be furnished.
▼—Model OV-220 engine can be furnished.

STUDEBAKER

●—Two speed 5.93-8.10 or 6.48-8.86 optional.
‡—Front only; rear 8.25/20D.
*—Front, centrifugal cast; rear, composite.

TRUCKSTELL

♦♦—With 3 speed power divider.
♦—Weight with cab and maximum tires.
▼—Including slip-over reinforcing frame channels.
†—Air brake optional.

WARD LA FRANCE

‡—Available with optional rear axles.
▲▲—Available with 11.00/22 or 12.00/20 tires for G.V.W. of 60,000 lbs and optional front and rear axles.
‡‡—Auxiliary transmission, Fuller 3A65, 3B65, 3A92 and 3B92.

WILLYS

*—Complete vehicle-Pick-up Type body.
‡—Three speed transmission, 2 speed transfer case.

(Turn to Next Page, Please)

(Continued from Page 141)

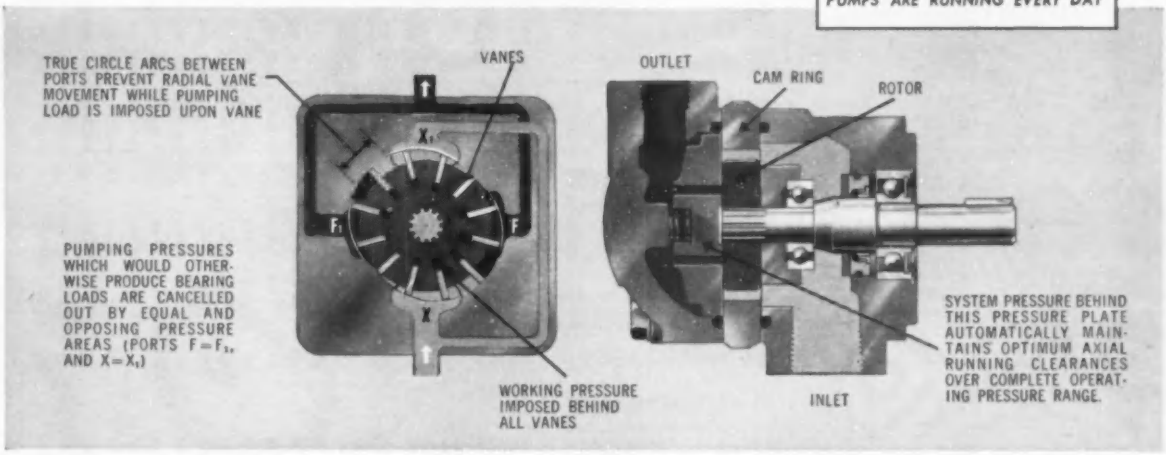
Line Number	MAKE AND MODEL	Chassis List Price	WHEELBASE Minimum Standard	WHEELBASE Maximum Standard	Gross Vehicle Weight for Normal Service	Chassis Weight (See definition)	TIRE SIZES D-dual rear S-single rear Standard Front and Rear	TIRE SIZES Maximum Authorized Tire Size (Dual unless noted)	ENGINE DETAILS Make and Model	No. of Cylinders, Bore and Stroke	Displacement	Comp. Ratio	Torque lb. ft.	Max. Brake H.P. at R.P.M. Given	Main Bearings Number and Diameter and Length	Governor Standard	TRANSMISSION Make and Model	TRANSMISSION Forward Speeds	REAR AXLE Make and Model	REAR AXLE Gear and Type	REAR AXLE Drive & Torque	REAR AXLE Gear Ratio Range in High	FRONT AXLE Make and Model	BRAKES SERVICE Make Location Type Operation	BRAKES SERVICE Lining Area	BRAKES SERVICE Drum Area	BRAKES SERVICE Drum Material	BRAKES Hand Location Type	C-A Dimensions (Min. Std. W. B.)	FRAME Side Rail Dimensions	FRAME Type
	Available																														
1	*200		Opt	Opt	16500	▲5707.00-20D	8.25/20	Wau 195GL	6-3½x4	265	6.2	220	78-2800	4-2½x7½	N	Fu 5A33●	5	Tim E100DH^	HF	H	** -6	20	Tim 32514	L4IHV	316	532/a	TX	48	8½x3x¼	C
2	*225		Opt	Opt	17500	▲6407.50-20D	8.25/20	Wau 195GK	6-4½x4	320	6.2	245	103-2800	4-2½x7½	N	Fu 5A33●	5	Tim E100DH^	HF	H	** -6	20	Tim 32514	L4IHV	316	532/a	TX	48	8½x3x¼	C
3	*250		Opt	Opt	20000	▲6608.25-20D	9.00/20	Wau 195GK	6-4½x4	320	6.2	245	103-2800	4-2½x7½	N	Fu 5A33●	5	Tim H100DH^	HF	R	** -6	17	Tim FC900	L4IHV†	478	844/a	TX	48	8½x3x¼	C
4	*300		Opt	Opt	23000	▲7009.00-20D	10.00-20	Wau 335GK	6-4½x4	320	6.2	245	103-2800	4-2½x7½	N	Fu 5A33●	5	Tim L100DH^	HF	R	** -6	17	Tim FD900	L4IHV†	548	876/a	TX	48	9½x3½x½	C
5	*500		Opt	Opt	24000	▲7709.00-20D	10.00/20	Wau 135GK	6-4½x5	426	6.3	330	150-2800	7-3½x14	Y	Fu 5A43●	5	Tim L100DH^	HF	R	** -6	17	Tim FD900	L4IHV†	548	876/a	TX	60	9½x3½x½	C
6	*550		Opt	Opt	26000	▲8309.00-20D	11.00/20	Wau 135GK	6-4½x5	426	6.3	330	150-2800	7-3½x14	Y	Fu 5A43●	5	Tim Q100DH^	HF	R	** -6	17	Tim FD900	L4IHV†	616	980/a	TX	60	9½x3½x½	C
7	*560		Opt	Opt	27000	▲9809.00-20D	11.00/24	Wau 135GZ	6-4½x5	451	6.3	350	155-2800	7-3½x14	Y	Fu 5A43●	5	Tim R100DH^	HF	R	** -6	83	Tim FD900	L4IHV†	616	980/a	FD	60	9½x3½x½	C
8	*600		Opt	Opt	28000	▲10209.00-20D	11.00/24	Wau 140GK	6-4½x5½	525	6.4	405	188-2800	7-3¼x13½	Y	Fu 5A62●	5	Tim R100DH^	HF	R	** -6	83	Tim FD900	L4IHV†	616	980/a	FD	60	9½x3½x½	C
9	*610		Opt	Opt	29000	▲10900 10.00-20D	11.00/24	Wau 145GK	6-5½x6	779	6.2	600	230-2200	7-3½x17½	Y	Sp 8051A●	5	Tim R100^^	HF	R	** -6	83	Tim FE900	41A	684	1141/a	FD	60	9½x3½x½	C
10	(D) *620		Opt	Opt	29000	▲11200 10.00-20D	11.00/24	Cum NHB	6-5½x6	743	17	535	200-2100	7-4½x16½	Y	Sp 8051A●	5	Tim R100^^	HF	R	** -6	83	Tim FE900	41A	684	1141/a	FD	60	9½x3½x½	L
11	(D) *630		Opt	Opt	40000	▲11900 12.00-20D	12.00-24	Cum NHB	6-5½x6	743	17	535	200-2100	7-4½x16½	Y	Sp 8051A●	5	Tim U200P^^	2F	R	** -7	03	Tim 27460	41A	726	1160/a	FD	60	9½x3½x½	L
12	Biederman NSH		130	190	21000	6070	8.25/20D	10.00/20	Her JXLD	6-4x4½	339	6.9	272	131-3200	7-2½x10½	N	Fu 5A330	5	Tim H100DPH	SF	H	** -7.2		T	FD900DPH	LH4IH	514	744/G	T	60	9x3x¼	C
13	NSD		130	190	21000	6070	8.25/20D	10.00/20	Her JXLD	6-4x4½	339	6.9	272	131-3200	7-2½x10½	N	Fu 5A330	5	Tim H300DPH	2D	H	6.67-9.44		T	FD900DPH	LH4IH	514	744/G	T	60	9x3x¼	C
14	NSR		142	171	21000	7420	8.25/20D	10.00/20	Her JXLD	6-4x4½	339	6.9	272	131-3200	7-2½x10½	N	Sp 3541UP	5	Tim H110DPH	HPd	H	** -6.4		Tim 35141PX	T4A	.....	.....	G	T		9x3x¼	C
15	HL		93	197	30000	12200	10.00/24D	12.00/24	Wau 140 GK	6-4½x5½	525	6.4	425	172-2600	7-3¼x13½	Y	Sp 6252A	5	Tim R200	HPd	H	6.41-8.37		Tim 36000TW	T4A	.....	.....	G	T	81	10x3x⅜	C
16	CH		137	190	26000	7800	9.00/20D	10.00/20	Con T6427	6-4⅞x4⅞	427	6.4	350	170-3000	7-2½x13½	Y	Fu 5A620	5	Tim QT300	2D	H	6.36-8.61		Tim FD900	BW4IA	620	928/G	TD	62	9x3x¼	C
17	Chevrolet D-56	▲1670	115		4101	▼3311	6.70/158	6.70/158	O-Bl. Fl. 140††	6-3⅜x3½	236	8.0	210	140-4200	4-⅞	N	Own ¶	3	Own	H	** -3.70		Own	O4IH	158	259/Co	2M		4x4½x¾	BG
18	3A56	1145	114		5000	▼2479	6.70/158	7/18.58	O-Th. Mas.	6-3⅜x3½	236	8.0	210	140-4200	4-⅞	N	Own ¶	3	Own	H	** -3.90		Own	O4IH	158	259/Co	2M		4x4½x¾	BG
19	3B56	▲1505	123½		5000	▼3448	6.70/158	7/18.58	O-Th. Mas.	6-3⅜x3½	236	8.0	210	140-4200	4-⅞	N	Own ¶	3	Own	H	** -3.90		Own	O4IH	158	259/Co	2M		6x2½x¾	C
20	(e.f.) 3C56	1320	104		10000	▼2707	8.20.58	8/20.5	O-Th. Mas. Sp.	6-3⅜x3½	236	8.0	210	140-4200	4-⅞	N	Own	3	Own	H	** -3.90		Own	O4IH	158	259/Co	2M		6½x2¼x¾	C
21	(e.f.) 3D56	1355	125		10000	▼2738	8.00/208	8/20.5	O-Th. Mas. Sp.	6-3⅜x3½	236	8.0	210	140-4200	4-⅞	N	Own	3	Own	H	** -5.14		Own	O4IH	186	302/Co	2M†		7¼x2¼x¾	C
22	(e.f.) 3F56	1385	137		10000	▼2793	8.00/208	8/20.5	O-Th. Mas. Sp.	6-3⅜x3½	236	8.0	210	140-4200	4-⅞	N	Own	3	Own	H	** -5.14		Own	O4IH	186	302/Co	2M†		7¼x2¼x¾	C
23	3E56	1305	123½		6900	▼2883	7.00/188	8/20.58^	O-Th. Mas.	6-3⅜x3½	236	8.0	210	140-4200	4-⅞	N	Own	3	Own	H	** -5.14		Own	O4IH	186	302/Co	2M†		7¼x2¼x¾	C
24	3G56	1425	135		8800	▼3137	8.00/188	8/20.5	O-Th. Mas.	6-3⅜x3½	236	8.0	210	140-4200	4-⅞	N	Own	3	Own	H	** -4.57		Own	O4IH	186	302/Co	2M		6x2¼x¾	C
25	4A56	1590	130		14000	▼3910	7.00-22D	8/22.5^^	O-Th. Mas.	6-3⅜x3½	236	8.0	210	140-4200	4-⅞	N	Own	4	Own	H	** -5.14		Own	O4IH	230	371/Co	TM		7¼x2¼x¾	C
26	4B56	1610	154		1400	▼4071	7.00-22D	8/22.5^^	O-Th. Mas.	6-3⅜x3½	236	8.0	210	140-4200	4-⅞	N	Own	4	Own	H	** -6.17		Own	O4IH	375	597/Ce	TM		9¼x2½x¾	C
27	(e.o.e.) 5D56	▲2505	112		15000	▼4496	8.00-22D	9/22.5●	O-Tsk. Mas.	8-3¼x3	265	7.5	249	155-4200	5-⅝	N	Own	4	Own	H	** -6.17		Own	O4IH	375	597/Ce	TM		9¼x3x¾	C
28	(e.o.e.) 5E56	▲2540	136		15000	▼5058	8.00-22D	9/22.5●	O-Tsk. Mas.	8-3¼x3	265	7.5	249	155-4200	5-⅝	N	Own	4	Own	H	** -6.17		Own	O4IH	382	597/Ce	TM		9¼x3x¾	C
29	(e.o.e.) 5F56	▲2580	160		15000	▼5161	8.00-22D	9/22.5●	O-Tsk. Mas.	8-3¼x3	265	7.5	249	155-4200	5-⅝	N	Own	4	Own	H	** -6.17		Own	O4IH	382	597/Ce	TM		9¼x3x¾	C
30	6F56	1910	130		15000	▼4329	8.22.5D	9/22.5●	O-T.M.HD^^	6-3⅜x3½	236	8.0	210	140-4200	4-⅞	N	Own	4	Own	H	** -6.17		Own	O4IH	382	597/Ce	TM		9¼x3x¾	C
31	6G56	1945	154		15000	▼4393	8.22.5D	9/22.5●	O-T.M.HD^^	6-3⅜x3½	236	8.0	210	140-4200	4-⅞	N	Own	4	Own	H	** -6.17		Own	O4IH	382	597/Ce	TM		9¼x3x¾	C
32	6H56	1995	172		15000	▼4488	8.22.5D	9/22.5●	O-T.M.HD^^	6-3⅜x3½	236	8.0	210	140-4200	4-⅞	N	Own	4	Own	H	** -6.17		Own	O4IH	382	597/Ce	TM		9¼x3x¾	C
33	(e.o.e.) 5A56	▲2505	112		19500	▼4961	8.22.5D	10/22.5●	O-Tsk. Mas.	8-3¼x3	265	7.5	249	155-4200	5-⅝	N	Own	4	Own	H	** -6.17		Own	O4IH	382	597/Ce	TM		9¼x3x¾	C
34	(e.o.e.) 5B56	▲2540	136		19500	▼5081	8.22.5D	10/22.5●	O-Tsk. Mas.	8-3¼x3	265	7.5	249	155-4200	5-⅝	N	Own	4	Own	H	** -6.17		Own	O4IH	382	597/Ce	TM		9¼x3x¾	C
35	(e.o.e.) 5C56	▲2580	160		19500	▼5161	8.22.5D	10/22.5●	O-Tsk. Mas.	8-3¼x3	265	7.5	249	155-4200	5-⅝	N	Own	4	Own	H	** -6.17		Own	O4IH	382	597/Ce	TM		9¼x3x¾	C
36	6A56	1910	130		19500	▼4329	8.22.5D	10/22.5●	O-Th. Mas.	6-3⅜x3½	236	8.0	210	140-4200	4-⅞	N	Own	4	Own	H	** -6.17		Own	O4IH	382	597/Ce	TM		9¼x3x¾	C
37	6B56	1945	154		19500	▼4393	8.22.5D	10/22.5●	O-T.M.HD^^	6-3⅜x3½	236	8.0	210	140-4200	4-⅞	N	Own	4	Own	H	** -6.17		Own	O4IH	382	597/Ce	TM		9¼x3x¾	C
38	6C56	1995	172		19500	▼4488	8.22.5D	10/22.5●	O-T.M.HD^^	6-3⅜x3½	236	8.0	210	140-4200	4-⅞	N	Own	4	Own	H	** -6.17		Own	O4IH	382	597/Ce	TM		9¼x3x¾	C
39	(Se. Bus Ch.) 4C56	1811	154		12000	▼4278	7.00-22D	8.00/22	O-Th. Mas.	6-3⅜x3½	236	8.0	210	140-4200	4-⅞	N	Own	4	Own	H	** -6.17		Own	O4IH	382	597/Ce	TM		9¼x3x¼	C
40	(Se. Bus Ch.) 6D56	2084	194		16000	▼4812	8.00-22D	9.00/22	O-T.M.HD	6-3⅜x3½	236	8.0	210	140-4200	4-⅞	N	Own	4	Own	H	** -6.17		Own	O4IH	382	597/Ce	TM		9¼x3x¾	C
41	(Se. Bus Ch.) 6E56	2121	220		16000	▼4887	8.00-22D	9.00/22	O-T.M.HD	6-3⅜x3½	236	8.0	210	140-4200	4-⅞	N	Own	4	Own	H	** -6.17		Own	O4IH	382	597/Ce	TM		9¼x3x¾	C
42	(Se Bus Ch.) 8F56	2800	240		19500	▼5612	10/22.5D	10/22.5	O-Tsk. Mas.	8-3¼x3	265	7.5	249	155-4200	5-⅝	N	Own	4	Own	H	** -6.17		Own	O4IH	382	597/Ce	TM		9¼x3x¾	C
43	(Se.B.Ch.) 810F56	3462	240		22000	▼5962	10/22.5D	10/22.5	O-Ld. Mas.	8-4x3½	322	7.3	310	195-4000	5-⅝	Y	Spl	4	Own	H	** -6.17		Own	O4IH	395	589/Ce	TM		9x3x¾	C
44	(e.o.e.) ‡‡7A56	▲3090	112		21000	▼5488	8.22.5D	10/22.5■■	O-Tsk. Mas.	8-3¼x3	265	7.5	249	155-4200	5-⅝	Y	Own	4	Own	H	** -6.17		Own	O4IH	466	683/Ce	TM		9x3x¾x¾	C
45	(e.o.e.) ‡‡7B56	▲3115	124		21000	▼5532	8.22.5D	10/22.5■■	O-Tsk. Mas.	8-3¼x3	265	7.5	249	155-4200	5-⅝	Y	Own	4	Own	H	** -6.17		Own	O4IH	395	589/Ce	TM		9x3x¾x¾	C
46	(e.o.e.) ‡‡7C56	▲3220	172		21000	▼5718	8.22.5D	10/22.5■■	O-Tsk. Mas.	8-3¼x3	265	7.5	249	155-4200	5-⅝	Y	Own	4	Own	H	** -6.17		Own	O4IH	395	589/Ce	TM		9x3x¾x¾	C
47	‡‡8A56	▲2825	132		21000	▼5447	8.22.5D	10/22.5■■	O-Tsk. Mas.	8-3¼x3	265	7.5	249	155-4200	5-⅝	Y	Own	4	Own	H	** -6.17		Own	O4IH	395	589/Ce	TM		9x3x¾x¾	C
48	‡‡8B56	▲2850	144		21000	▼5495	8.22.5D	10/22.5■■	O-Tsk. Mas.	8-3¼x3	265	7.5	249	155-4200	5-⅝	Y	Own	4	Own	H	** -6.17		Own	O4IH	395	589/Ce	TM		9x3x¾x¾	C
49	‡‡8C56	▲2875	156		21000	▼5560	8.22.5D	10/22.5■■	O-Tsk. Mas.	8-3¼x3	265	7.5	249	155-4200	5-⅝	Y	Own	4	Own	H	** -6.17		Own	O4IH	395	589/Ce	TM		9x3x¾x¾	C
50	‡‡8D56	▲2915	174		21000	▼5644	8.22.5D	10/22.5■■	O-Tsk. Mas.	8-3¼x3	265	7.5	249	155-4200	5-⅝	Y	Own	4	Own	H	** -6.17		Own	O4IH	395	589/Ce	TM		9x3x¾x¾	C
51	‡‡8E56	▲2955	192		21000	▼5752	8.22.5D	10/22.5■■	O-Tsk. Mas.	8-3¼x3	265	7.5	249	155-4200	5-⅝	Y	Own	4	Own	H	** -6.17		Own	O4IH	395	589/Ce	TM		9x3x¾x¾	C
52	(e.o.e.) ‡‡9A56	▲4068	112		25000	▼6130	9/22.5D	11/22.5●●	O-Ld. Mas.	8-4x3½	322	7.3	310	195-4000	5-⅝	Y	Spl	5	Own	H	** -7	17	Own	O4IH	395	589/Ce	TM		9x3x¾x¾	C
53	(e.o.e.) ‡‡9B56	▲4093	124		25000	▼6173	9/22.5D	11/22.5●●	O-Ld. Mas.	8-4x3½	322	7.3	310	195-4000	5-⅝	Y	Spl	5	Own	H	** -7	17	Own	O4IH	466	683/Ce	TM		9x3x¾x¾	C
54	(e.o.e.) ‡‡9C56	▲4208	172		25000	▼6356	9/22.5D	11/22.5●●	O-Ld. Mas.	8-4x3½	322	7.3	310	195-4000	5-⅝	Y	Spl	5	Own	H	** -7	17	Own	O4IH	▶466	683/Ce	TM		9x3x¾x¾	C
55	‡‡10A56	▲3735	132		25000	▼6119	9/22.5D	11/22.5●●	O-Ld. Mas.	8-4x3½	322	7.3	310	195-4000	5-⅝	Y	Spl	5	Own	H	** -7	17	Own	O4IH	▶466	683/Ce	TM		9x3x¾x¾	C
56	‡‡10B56	▲3760	144		25000	▼6161	9/22.5D	11/22.5●●	O-Ld. Mas.	8-4x3½	322	7.3	310	195-4000	5-⅝	Y	Spl	5	Own	H	** -7	17	Own	O4IH	▶466	683/Ce	TM		9x3x¾x¾	C
57	‡‡10C56	▲3785	156		25000	▼6221	9/22.5D	11/22.5●●	O-Ld. Mas.	8-4x3½	322	7.3	310	195-4000	5-⅝	Y	Spl	5	Own	H	** -7	17	Own	O4IH	▶466	683/Ce	TM		9x3x¾x¾	C
58	‡‡10D56	▲3830	174		25000	▼6306	9/22.5D	11/22.5●●	O-Ld. Mas.	8-4x3½	322	7.3	310	195-4000	5-⅝	Y	Spl	5	Own	H	** -7	17	Own	O4IH	▶466	683/Ce	TM		9x3x¾x¾	C
59	‡‡10E56	▲3875	192		25000	▼6416	9/22.5D	11/22.5●●	O-Ld. Mas.	8-4x3½	322	7.3	310	195-4000	5-⅝	Y	Spl	5	Own	H	** -7	17	Own	O4IH	▶466	683/Ce	TM		9x3x¾x¾	C
60	(H. D. Tan.) 10C56		156		32000	▼8158	8.22.5D	10/22.5■■	O-Ld. Mas.	8-4x3½	322	7.3	310	195-4000	5-⅝	Y	Spl	5	Own	H	** -7	17	Own	O4IH	▶466	683/Ce	TM		9x3x¾x¾	C
61	(H. D. Tan.) 10D56		174		32000	▼8265	8.22.5D	10/22.5■■	O-Ld. Mas.	8-4x3½	322	7.3	310	195-4000	5-⅝	Y	Spl	5	Own	H	** -6	17	Own	O4IH	640	966/Ce	TM		9½x3½x½	P
62	(H. D. Tan.) 10E56		192		32000	▼8341	8.22.5D	10/22.5■■	O-Ld. Mas.	8-4x3½	322	7.3	310	195-4000	5-⅝	Y	Spl	5	Own	H	** -6	17	Own	O4IH	640	966/Ce	TM		9½x3½x½	P
63	Dodge C-3-B6		108	116	5100	2350	6.70/158	6.50/168	Own T-434	6-3½x5½	230	7.6	201	115-3600	4-22½x4.8	N	Own	3	Own T-434	H	3.73-4.78		Own T-434	O4IH	175	264/Ce	TX		½x2½x6½	C
64	C-3-B8		108	116	5100	2450	6.70/158	6.50/168	Own VT-434	8-3½x3¼	259	7.6	243	169-4400	5-2½x4.8	N	Own	3	Own VT-434	H	3.73-4.78		Own VT-434	O4IH	175	264/Ce	TX		½x2½x6½	C
65	C-3-C8		116	116	5800	2475	7.00/158	7.00/158	Own T-436	6-3½x4½	230	7.6	201	115-3600	4-2½x4.8	N	Own	3	Own T-436	H	4.1-4.78		Own T-436	O4IH	184	277/Co	TX		6½x2½x6½	C
66	C-3-C8		116	116	5800	2575	7.00/158	7.00/158	Own VT-436	8-3½x3¼	259	7.6	243	169-4400	5-2½x4.8	N	Own	3	Own VT-436	H	4.1-4.78		Own VT-436	O4IH	184	277/Co	TX		6½x2½x6½	C
67	C-3-D6		116	126	8800	2825	7/17.58	7/17.5	Own T-438	6-3½x4½	230	7.6	201	115-3600	4-2½x4.8	N	NP 89905	3	Own T-438	HF	H	4.1-4.89		Own T-438	O4IH	233	357/Co	TX		½x2½x6½	C
68	C-3-D8		116	126	8800	2925	7/17.58	7/17.5	Own VT-438	8-3½x3¼	259	7.6	243	169-4400	5-2½x4.8	N	NP 89905	3	Own VT-438	HF	H	4.1-4.89		Own VT-438	O4IH	233	357/Co	TX		½x2½x6½	C
69	C-3-G6*		129	171	15000	3925	7/22.5D	9/22.5	Own T-442	6-3⅞x4½	251	7.1	216	125-3600	4-2½x5.05	N	NP 420	4	Own T-442	HF	H	5.63-6.83		Own T-442	O4IH	336	480/Ce	TX		½x2½x8½	C
70	C-3-G8*		129	171	15000	4000	7/22.5D	9/22.5	Own VT-442	8-3½x3¼	259	7.6	243	169-4400	5-2½x4.8	N	NP 420	4	Own VT-442	HF	H	5.63-6.83		Own VT-442	O4IH	336	480/Ce	TX		½x2½x8½	C
71	C-3-H6*		129	193	17000	4208	7/22.5D	10/22.5	Own T-444	6-3⅞x4½	251	7.1	216	125-3600	4-2½x5.05	N	NP 420	4	Own T-444	HF	H	6.29-6.83		Own T-444	O4IHV	372	529/Ce	TX		½x2½x8½	C
72	C-3-H8*		129	193	17000	4258	7/22.5D	10/22.5	Own VT-444	8-3½x3¼	259	7.6	243	169-4400	5-2½x4.8	N	NP 420	4	Own VT-444	HF	H	6.29-6.83		Own VT-444	O4IHV	372	529/Ce	TX		½x2½x8½	C
73	C-3-HH6*		129	193	18000	4425	8/22.5^	10/22.5	Own T-446	6-3⅞x4½	251	7.1	216	125-3600	4-2½x5.05	N	NP 420	4	Own T-446	HF	H	6.29-6.83		Own T-446	O4IHV	432	604/C	TX		9¼x2½x¾	C
74	C-3-HH8*		129	193	18000	4500	8/22.5^	10/22.5	Own VT-446	8-3½x3¼	259	7.6	243	169-4400	5-2½x4.8	N	NP 420	4	Own VT-446	HF	H	6.29-6.83		Own VT-446	O4IHV	432	604/C	TX		9¼x2½x¾	C
75	C-3-K*		129	171	21000	5200	9/22.5D	11/22.5	Own T-448	8-3½x3¾	331	7.5	311	201-3900	5-2½x5.09	Y	NP 540	5	Tim H-141	HF	H	6.8-7.2		Own VT-448	O4IHV	432	604/C	TX		9¼x2½x¾	C
76	C-3-T8*		132	192	25000	6050	10/22.5D	12/22.5	Own VT-450	8-3½x3¾	331	7.5	333	212-3900	5-2½x5.09	Y	Cla 265V	5	Tim L-140	HF	H	7.2-7.4		Tim 32550	O4IHV	460	666/C	TX		½x2½x9½	C
77	C-3-Y8*		132	192	30000	6525	11/22.5D	12/22.5	Own VT-452	8-3½x3¾	354	7.7	354	220-3900	5-2½x5.09	Y	Cla 290	5	Tim QT-140	HF	H	** -7.4		Tim 32550	O4IHV	530	770/C	TX		10½x3½x½	C
78	(e.o.e.) C-3-HM8*		108	162	17000	4200	8/22.5D	12/22.5	Own T-456	6-3⅞x4½	251	7.1	216	125-3600	4-2½x4.8	N	NP 420	4	Own VT-456	HF	H	6.29-6.83		Own VT-456	O4IHV	372	529/Ce	TX		½x2½x8½	C
79	(e.o.e.) C-3-HHM8*		108	162	18000	4375	8/22.5^	10/22.5	Own VT-458	8-3½x3¼	259	7.6	262	172-4400	5-2½x4.8	N	NP 420	4	Own VT-458	HF	H	6.29-6.83		Own VT-458	O4IHV	432	603/C	TX		½x2½x8½	C

(Turn to Page 144, Please)

For Key to References and Abbreviations See Page 141

Question: Why are VICKERS Balanced Vane Pumps the most widely used oil hydraulic power pumps on mobile equipment?

MILLIONS OF VICKERS VANE TYPE PUMPS ARE RUNNING EVERY DAY



Answer: Because of their SUPERIOR PERFORMANCE and MANY OTHER BENEFITS for the user.

For more than two decades, the Vickers Balanced Vane Type has held the leading position among hydraulic power pumps . . . growing steadily in popularity. The various models (only a few shown below) are *the most widely used of all pumps in oil hydraulic service on mobile equipment.*

The many advantages listed hereafter merit the thoughtful attention of anyone concerned with the selection and use of oil hydraulic pumps for construction, automotive, agricultural and materials handling equipment.

COMPLETE HYDRAULIC BALANCE—Each inlet and outlet port is balanced by another equal in size and radially opposite . . . pressure-induced bearing loads are thus eliminated.

VICKERS INCORPORATED
DIVISION OF SPERRY RAND CORPORATION
ADMINISTRATIVE and ENGINEERING CENTER
Department 1418 • Detroit 32, Michigan

Application Engineering Offices: ATLANTA • CHICAGO CINCINNATI • CLEVELAND • DETROIT • HOUSTON • LOS ANGELES AREA (El Segundo) • MINNEAPOLIS • NEW YORK AREA (Summit, N.J.) • PHILADELPHIA AREA (Media) PITTSBURGH AREA (Mt. Lebanon) • PORTLAND, ORE. ROCHESTER • ROCKFORD • SAN FRANCISCO AREA (Berkeley) SEATTLE • ST. LOUIS • TULSA • WASHINGTON WORCESTER
IN CANADA: Vickers-Sperry of Canada, Ltd., Toronto

OPTIMUM RUNNING CLEARANCES—Both radial and axial clearances are automatically maintained over complete operating pressure range and throughout pump life.

FLOATING ROTOR DRIVE—Rotor is free to float, for correct centering and alignment, on a rigidly supported spline.

TRUE-CIRCLE CAM ARCS between ports prevent radial vane movement while pumping load is imposed upon vanes. Wear between vanes and rotor is thus practically eliminated.

EASIER COLD WEATHER STARTING—At normal engine starting speeds vanes are retracted . . . centrifugal force is insufficient to throw vanes outward into operating position . . . thus no pumping action takes place and pump drag on starting engine or motor is nonexistant. Only after engine starts is speed sufficient to extend vanes and begin pumping.

GREATER INSTALLATION ADAPTABILITY—Various types of mountings and four optional positions of pressure outlet connection. By unbolting and rotating pump head, the outlet can be placed parallel, opposite to or at a right angle in either direction to inlet. Shaft drive is in either direction depending only on internal assembly. Pump can be driven by belt, chain, gear or directly coupled.

HIGHER EFFICIENCY—Tests prove exceptionally high volumetric and overall efficiency . . . not only when pump is new but also after long service.

AUTOMATIC WEAR COMPENSATION—Vanes are held in contact with the cam ring by centrifugal force and hydraulic pressure. If wear occurs, vanes revolve in a slightly larger orbit without appreciable change in performance.

TEMPERATURE ADAPTABILITY—Correct running clearances are automatically maintained which compensate for wide variation in oil viscosity resulting from temperature variation.

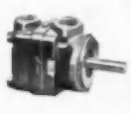
MINIMUM MAINTENANCE—Hydraulic balance . . . optimum running clearances . . . floating rotor drive . . . automatic wear compensation eliminate the most important causes for maintenance and repair.

LONGER LIFE—The numerous features mentioned above that keep down maintenance also contribute to longer life.

COMPACT—These pumps occupy very little space in proportion to their capacities.

CONSTRUCTION SIMPLICITY is evident from the illustrations above. This simplicity is another reason for the superiority of Vickers Vane Pumps. For further information, ask for Bulletin M-5101.

Single pump available in five basic case sizes having 15 normal delivery ratings. Operating pressures to 1500 psi (two largest units to 1000 psi).



Double pump for operating two independent hydraulic circuits from one power source. Available in 38 combinations. Operating pressures to 1500 psi (two largest units to 1000 psi).



"Package" type pump with integral volume control and relief valve, and oil reservoir; also available without oil reservoir. See Bulletin M-5107. (This pump only.)



ALL MODELS HAVE THE VICKERS ADVANTAGES MENTIONED ABOVE

7353

(Continued from Page 142)

Line Number	MAKE AND MODEL	Chassis List Price	WHEELBASE Minumum Standard	WHEELBASE Maximum Standard	Gross Vehicle Weight for Normal Service	Chassis Weight (See definition)	TIRE SIZES D-dual rear S-single rear Standard Front and Rear	TIRE SIZES Maximum Authorized Load (Duals unless noted)	ENGINE DETAILS Make and Model	No. of Cylinders, Bore and Stroke	Displacement	Comp. Ratio	Torque lb. ft.	Max. Brake H.P. at R.P.M. Given	Main Bearings Number	Main Bearings Diameter and Length	Governor Standard	TRANSMISSION Make and Model	TRANSMISSION Forward Speeds	REAR AXLE Make and Model	REAR AXLE Gear and Type	REAR AXLE Drive & Torque	REAR AXLE Gear Ratio Range in High	FRONT AXLE Make and Model	BRAKES SERVICE Make	BRAKES SERVICE Location	BRAKES SERVICE Type Operation	BRAKES SERVICE Lining Area	BRAKES SERVICE Drum Area	BRAKES SERVICE Drum Material	BRAKES Hand Location Type	CA Dimensions (Min. Std. W. B.)	FRAME Side Rail Dimensions	FRAME Type
	Dodge—C'nt'd																																	
1	(c.o.e.) C-3-KM8●		108	162	21000	5100	9.22.5D	11.22.5	Own	VT-460	8-3⅞	x3½	331	7	5	311	201-3900	5-2½	x5.09	Y	NP 540	5	Tim	H-141	HF	H	6.8	-7.2	Own	VT-460	O41HV	432	603	C	TX		A x2 7/8	x9 A	C
2	(c.f.) C-3-DN6		116	126	9000	2550	7.17.5	7.17.5	Own	T-418	6-3¼	x4½	230	6	6	201	115-3600	4-2½	x4.8	N	WG T87D	3	Own	T-418	HF	H	4.1	-4.89	Own	T-418	O41H	233	357	Co	TX		A x2 A	x6½	C
3	(c.f.) C-3-DN8		116	126	9000	2650	7.17.5	7.17.5	Own	VT-418	8-3⅞	x3½	270	8	6	262	172-4400	5-2½	x4.8	N	WG T87D	3	Own	VT-418	HF	H	4.1	-4.89	Own	VT-418	O41H	233	357	Co	TX		6¼ x2 A	x7	C
4	(c.f.) C-3-FN6		108	129	15000	3325	8.19.5R	8.22.5	Own	T-422	6-3¾	x4½	230	7	6	201	115-3600	4-2½	x4.8	N	WG T87D	3	Own	T-422	HF	H	5.63	-6.83	Own	T-422	O41H	382	555	Ce	TX		A x2¼	x8	C
5	(c.f.) C-3-FN8		108	129	15000	3425	8.19.5R	8.22.5	Own	VT-422	8-3⅝	x3¼	270	8	6	262	172-4400	5-2½	x4.8	N	WG T87D	3	Own	VT-422	HF	H	5.63	-6.83	Own	VT-422	O41H	382	555	Ce	TX		8 A x2 1/8	x8 A	C
6	(Se.Bus) C-3-FN6●		153	153	15000	4425	7.22.5D	7.22.5	Own	T8-442	6-3¾	x4½	251	7	1	216	125-3600	4-2½	x5.05	N	NP 420	4	Own	T8-442	HF	H	5.63	-6.83	Own	T8-442	O41H	336	480	Ce	TX		¼ x2 ¼	x9 A	C
7	(Se.Bus) C-3-GS8●		153	153	15000	4500	7.22.5D	7.22.5	Own	VTS-442	8-3⅝	x3¼	259	7	6	243	169-4400	5-2½	x4.8	N	NP 420	4	Own	VTS-442	HF	H	5.63	-6.83	Own	VTS-442	O41H	336	480	Ce	TX		A x2 ¼	x9 A	C
8	(Se.Bus) C-3-HS6●		193	217	17000	4625	8.22.5D	10.22.5	Own	T8-444	6-3¾	x4½	251	7	1	216	125-3600	4-2½	x5.05	N	NP 420	4	Own	T8-444	HF	H	6.29	-6.83	Own	T8-444	O41HV	372	529	Ce	TX		¼ x2 ¼	x9 A	C
9	(Se.Bus) C-3-HS8●		193	217	17000	4700	8.22.5D	10.22.5	Own	VTS-444	8-3¾	x4⅛	259	7	6	243	169-4400	5-2½	x4.8	N	NP 420	4	Own	VTS-444	HF	H	6.29	-6.83	Own	VTS-444	O41HV	372	529	Ce	TX		9¼ x2 ¼	x9 A	C
10	(Se.Bus) C-3-HH6●		217	217	18000	5125	8.22.5D	10.22.5	Own	T8-446	6-3¾	x4⅛	265	7	6	228	130-3600	4-2½	x5.05	N	NP 420	4	Own	T8-446	HF	H	6.29	-6.83	Own	T8-446	O41HV	432	603	C	TX		A x2 7/8	x9 A	C
11	(Se.Bus) C-3-HH8●		217	217	18000	5200	8.22.5D	10.22.5	Own	VTS-446	8-3¾	x3½	270	7	6	262	172-4400	5-2½	x4.8	N	NP 420	4	Own	VTS-446	HF	H	6.29	-6.83	Own	VTS-446	O41HV	432	603	C	TX		9¼ x2 ¼	x9 A	C
12	(Se.Bus) C-3-KS8●		236	254	21000	5825	9.22.5D	10.22.5	Own	VTS-448	8-3⅞	x3½	331	7	5	311	201-3900	5-2½	x5.09	Y	NP 540	5	Tim	H-141	HF	H	6.8	-7.2	Own	VTS-448	O41HV	432	603	C	TX		11 x2 H	x9 ½	C
13	Duplex T		136	220	20000	6600	8.25/20D	9.00/20	Her	JXD	6-4x4½		320	6	2	240	113-3000	7-2½	x10½	Y	Fu 5B330	5	Tim	H100	B	H	**	-7.20	Tim	FC900	L4IHV	420	654	a	TX	57½	9¼ x3 ½	x A	C
14	TH-404		136	220	20000	6900	8.25/20D	9.00/20	Her	WXLC-3	6-4¼	x4½	404	5	8	312	139-2600	7-2½	x13¼	Y	Fu 5A430	5	Tim	H-300	DF	H	6.13	-8.15	Tim	FC900	L4IHV	420	654	a	TX	49½	9¼ x3 ½	x A	P
15	R		136	220	28000	8820	9.00/20D	11.00/20	Her	WXLC-3	6-4¼	x4½	404	5	8	312	139-2600	7-2½	x13¼	Y	Fu 5A43	5	Tim	Q300	DF	R	6.42	-8.38	Tim	FD900	L4IHV	730	1016	a	TX	49½	9¼ x3 ½	x A	P
16	SH-529		172	208	28000	9500	10.00/20	11.00/20	Her	RXC	6-4½	x5¼	529	5	4	395	132-2300	7-3x13¼		Y	Fu 5A620		Tim	Q200	2F	R	**	-7.77	Tim	FD900	BW41A	730	1016	a	TX	61¼	9¼ x3 ½	x A	P
17	L-6602		164	200	37000	11650	11.00/20D	11.00/20	Con	R6602	6-4½	x5¼	602	6	1	465	200-2600	7-3¼	x14 H	Y	Fu 5C650	5	Tim	U-200	DF	R	**	-9.83	Tim	FE900	BW41A	912	1311	a	TX	73¼	10¼ x3	x A	P
18	KH		148	220	34000	10500	11.00/20D	11.00/20	Her	RXC	6-4½	x5¼	529	5	4	395	132-2300	7-3x13¼		Y	Fu 5A620	5	Tim	U-200	2F	R	**	-9.83	Tim	FE900	BW41A	912	1311	a	TX	60¾	10¼ x3	x A	P
19	LH		148	220	37000	11300	11.00/20D	11.00/20	Her	RXLD	6-4¼	x5¼	558	5	4	430	154-2400	7-3½	x13¼	Y	Fu 5C650	5	Tim	U-200	2F	R	**	-9.83	Tim	FE900	BW41A	912	1311	a	TX	60¾	10¼ x3	x A	P
20	Federal 400R-1		133	193	29000	8645	10.00/20	11.00/20	Con	T6427	6-4 A	x4½	427	6	4	350	170-3000	7-2¾	x13½	Y	Cla 290V	5	Tim	Q-100	Hy	R	4.63	-7.8	Tim	FE-900	T4IA	579	928	a	T	60	10¼ x3	x A	C
21	400R-2		133	193	29000	8810	10.00/20	11.00/20	Con	T6427	6-4 A	x4½	427	6	4	350	170-3000	7-2¾	x13½	Y	Cla 290V	5	Tim	Q-200	Hy	R	7.64	-8.38	Tim	FE-900	T4IA	579	928	a	T	60	10¼ x3	x A	C
22	400R-3		133	193	29000	8875	10.00/20	11.00/20	Con	T6427	6-4 A	x4½	427	6	4	350	170-3000	7-2¾	x13½	Y	Cla 290V	5	Tim	Q-300	Hy	R	5.69	-6.42	Tim	FE-900	T4IA	579	928	a	T	60	10¼ x3	x A	C
23	400R-4		133	193	31000	8760	10.00/20	11.00/22	Con	T6427	6-4 A	x4½	427	6	4	350	170-3000	7-2¾	x13½	Y	Cla 290V	5	Tim	R-100	Hy	R	4.11-7	-40	Tim	FE-900	T4IA	579	928	a	T	60	10¼ x3	x A	C
24	400R-5		133	193	31000	8920	10.00/20	11.00/22	Con	T6427	6-4 A	x4½	427	6	4	350	170-3000	7-2¾	x13½	Y	Cla 290V	5	Tim	R-200	Hy	R	5.91-9	-76	Tim	FE-900	T4IA	579	928	a	T	60	10¼ x3	x A	C
25	400R-6		133	193	31000	8980	10.00/20	11.00/22	Con	T6427	6-4 A	x4½	427	6	4	350	170-3000	7-2¾	x13½	Y	Cla 290V	5	Tim	R-300	H2	R	4.41-7	-40	Tim	FE-900	T4IA	579	928	a	T	60	10¼ x3	x A	C
26	400R-7		133	193	36000	9130	11.00/20	12.00/20	Con	T6427	6-4 A	x4½	427	6	4	350	170-3000	7-2¾	x13½	Y	Cla 290V	5	Tim	U-200	H2	R	5.91-9	-76	Tim	FE-900	T4IA	713	1032	a	T	60	10¼ x3	x A	C
27	400R-8		133	193	36000	9260	11.00/20	12.00/20	Con	T6427	6-4 A	x4½	427	6	4	350	170-3000	7-2¾	x13½	Y	Cla 290V	5	Tim	U-300	H2	R	4.41-7	-40	Tim	FE-900	T4IA	713	1032	a	T	60	10¼ x3	x A	C
28	500R-1		133	193	33000	9625	11.00/20	11.00/22	Con	U6501	6-4½	x5¼	501	6	1	413	182-2800	7-2¾	x14¼	Y	Fu 5A65	5	Tim	R-100	H	R	4.11-7	-40	Tim	FE-900	T4IA	713	1032	a	T	60	10¼ x3	x A	C
29	500R-2		133	193	33000	9780	11.00/20	11.00/22	Con	U6501	6-4½	x5¼	501	6	1	413	182-2800	7-2¾	x14¼	Y	Fu 5A65	5	Tim	R-200	H2	R	5.91-9	-76	Tim	FE-900	T4IA	713	1032	a	T	60	10¼ x3	x A	C
30	500R-3		133	193	33000	9840	11.00/20	11.00/22	Con	T6501	6-4½	x5¼	501	6	1	413	182-2800	7-2¾	x14¼	Y	Fu 5A65	5	Tim	R-300	H2	R	4.41-7	-40	Tim	FE-900	T4IA	713	1032	a	T	60	10¼ x3	x A	C
31	500R-4		133	193	37000	9990	11.00/20	12.00/20	Con	U6501	6-4½	x5¼	501	6	1	413	182-2800	7-2¾	x14¼	Y	Fu 5A65	5	Tim	U-200	H2	R	5.91-9	-76	Tim	FE-900	T4IA	713	1032	a	T	60	10¼ x3	x A	C
32	500R-5		133	193	37000	10140	11.00/20	12.00/20	Con	U6501	6-4½	x5¼	501	6	1	413	182-2800	7-2¾	x14¼	Y	Fu 5A65	5	Tim	U-300	H2	R	4.41-7	-09	Tim	FE-900	T4IA	713	1032	a	T	60	10¼ x3	x A	C
33	600R-1		133	193	39000	10702	11.00/22	12.00/24	Con	R6602	6-4½	x5½	602	6	2	480	212-2800	7-3¼	x14½	Y	Fu 5A65	5	Tim	U-200	H2	R	5.91-9	-76	Tim	FE-900	T4IA	713	1032	a	T	60	10¼ x3	x A	C
34	600R-2		133	193	39000	10852	11.00/22	12.00/24	Con	R6602	6-4½	x5½	602	6	2	480	212-2800	7-3¼	x14½	Y	Fu 5A65	5	Tim	U-300	H2	R	4.41-7	-09	Tim	FE-900	T4IA	713	1032	a	T	60	10¼ x3	x A	C
	Ford Courier																																	
35	Sedan Dlvy	115⅛	115⅛		4600	▲3260	6.70/15	8	7.10/15	8	Own		6-3.62	x3.6	223	8	0	202	137-4200	4-2.5	x3.98		Own		3	Own		H½	H	4.09-4.27	Own		O41H	192			21M		4x2 x A		
36	Sedan Dlvy	115⅛	115⅛		4600	▲3360	6.70/15	8	7.10/15	8	Own		8-3.62	x3.3	272	8	0	260	173-4400	5-2.5	x3.57		Own		3	Own		H½	H	4.09-4.27	Own		O41H	192			21M		4x2 x H		
	F-100																																	
37	Cowl		110	110	5000	2280	6.70/15	8	6.50/16	8	Own		6-3.62	x3.6	223	7	8	202	133-4000	4-2.5	x3.98		Own		3	Own		H½	H	-3.92	Own		O41H	179	259		21M	41	5 H	x2 ¼	x A	C
38	Cowl		110	110	5000	2380	6.70/15	8	6.50/16	8	Own		8-3.62	x3.3	272	7	8	260	167-4400	5-2.5	x3.57		Own		3	Own		H½	H	-3.73	Own		O41H	179	259		21M	41	5 H	x2 ¼	x A	C
	F-250																																	
39	Cowl		118	118	7400	2620	6.50/16S	8	8.00/20S	8	Own		6-3.62	x3.6	223	7	8	202	133-4000	4-2.5	x3.98		Own		3	Own		HF	H	-4.88	Own		O41H	198	305		TX	49	6x2 ¼	x A	C
40	Cowl		118	118	7400	2725	6.50/16S	8	8.00/20S	8	Own		8-3.62	x3.3	272	7	8	260	167-4400	5-2.5	x3.57		Own		3	Own		HF	H	-4.56	Own		O41H	198	305		TX	49	6x2 ¼	x A	C
	F-350																																	
41	Cowl		130	130	††9800	2990	8.00/18S	8	8.00/18		Own		6-3.62	x3.6	223	7	8	202	133-4000	4-2.5	x3.98		Own		3	Own		HF	H	5.14-5	83	Own		O41H	231	355		TX	61	7x2 ¼	x D	C
42	Cowl		130	130	††9800	3090	8.00/18S	8	8.00/18		Own		8-3.62	x3.3	272	7	8	260	167-4400	5-2.5	x3.57		Own		3	Own		HF	H	4.86-5.14	Own		O41H	231	355		TX	61	7x2 ¼	x D	C
	F-500																																	
43	Cab		130	154	15000	▲4230	7.00/22D	8	8.00/22		Own		6-3.62	x3.6	223	7	8	202	133-4000	4-2.5	x3.98		Own		4	Own		HF	H	6.20-6	80	Own		O41HV	366	561		TX	61	†		C
44	Cab		130	154	15000	▲4370	7.00/22D	8	8.00/22		Own		8-3.62	x3.3	272	7	8	260	167-4400	5-2.5	x3.57		Own		4	Own		HF	H	5.83-6	20	Own		O41HV	366	561		TX	61	†		C
	F-600																																	
45	Cab		130	172	17000	▲4655	8.00/22D	9	9.00/22		Own		6-3.62	x3.6	223	7	8	202	133-4000	4-2.5	x3.98		Own		4	Own		HF	H	6.80-7	20	Own		O41HV	366	561		TX	61	9¼ x2 H	x 1¼	C
46	Cab		130	172	17000	▲4755	8.00/22D	9	9.00/22		Own●		8-3.62	x3.3	272	7	8	260	167-4400	5-2.5	x3.57		Own		4	Own		HF	H	6.20-6	80	Own		O41HV	366	561		TX	61	9¼ x2 H	x 1¼	C
	F-700																																	
47	Cab		132	192	21000	▲5360	8.00/22D	10	10.00/22		Own♣		8-3.62	x3.3	272	7	6	247	158-3800	5-2.5	x3.57	Y	Own		4	Own		HF	H	**	-7.17	Own		O41HV	444	697		TX	61	9x3x¼		L
	F-750																																	
48	Cab		132	192	21000	▲5735	9.00/22D	10	10.00/22		Own♦		8-3.62	x3.7	302	7	5	279	175-3800	5-2.62	x4.2	Y	Own		5	Own		HF	H	**	-7.17	Own		O41HV	444	697		TX	61	9x3x¼		L
	F-800																																	
49	Cab		132	192	24000	▲6275	10.00/22D	11	11.00/22		Own●		8-3.8	x3.7	332	7	5	306	190-3800	5-2.62	x4.2	Y	Own		5	Own		SF	H	7.17-7	67	Own		O41HV	485	729		TX	61	9x3x¼		L
	F-900																																	
50	Cab		132	192	29000	▲6565	11.00/22D	12	12.00/22		Own●		8-3.8	x3.7	332	7	5	306	190-3800	5-2.62	x4.2	Y	Own		5	Own		SF	H	7.67-7	17	Own		O41HV	542	829		TX	61	9x3x¼		L
	T-700																																	
51	Cab		144	192	28000	▲7630	8.00/22D	9	9.00/22		Own*		8-3.62	x3.3	272	7	6	247	158-3800	5-2.5	x3.57	Y	Own		5	Own		HF	H	7.79-6	70	Own		O61HV	625	980		TX	73	9x3x¼		L
	T-750																																	
52	Cab		144	192	36000	▲8930	9.00/22D	10	10.00/22		Own●		8-3.8	x3.7	332	7	5	306	190-3800	5-2.62	x4.2	Y	Own		5	Own		HF	H	7.79-7	07	Own		O61HV	756	1170		TX	73	9¼ x3	½ x3¼	L
	T-800																																	
53	Cab		144	192	42000	▲9390	10.00/22D	11	11.00/22		Own●		8-3.8	x3.7	332	7	5	306	190-3800	5-2.62	x4.2	Y	Own		5	Own		SF	H	8.60-7	80	Own		O61HV	837	1232		TX	73	9¼ x3	½ x3¼	L
	C-500 (c. f.)																																	
54	Cab		110	158	15000	▲4570	7.00/22D	8	8.00/22		Own		8-3.62	x3.3	272	7	8	260	167-4400	5-2.5	x3.57		Own		4	Own		HF	H	6.20-6	80	Own		O41HV	366	561		TX	60	9¼ x2 H	x 1¼	C
	C-600 (c. f.)																																	
55	Cab		110	158	17000	▲4810	8.00/22D	9	9.00/22		Own●		8-3.62	x3.3	272	7	8	260	167-4400	5-2.5	x3.57		Own		4	Own		HF	H	6.20-6	80	Own		O41HV	366	561		TX	60	9¼ x2 H	x 1¼	C
	C-700 (c. f.)																																	
56	Cab		116	156	21000	▲5660	8.00/22D	10	10.00/22		Own♣		8-3.62	x3.3	272	7	6	247	158-3800	5-2.5	x3.57	Y	Own		4	Own		HF	H	**	-7.17	Own		O41HV	444	697		TX	66	9x3x¼		L
	C-750 (c. f.)																																	
57	Cab		116	156	21000	▲5940	9.00/22D	10	10.00/22		Own♦		8-3.62	x3.7	302	7	5	279	175-3800	5-2.62	x4.2	Y	Own		5	Own		HF	H	**	-7.17	Own		O41HV	444	697		TX	66	9x3x¼		L
	C-800 (c. f.)																																	
58	Cab		116	156	24000	▲6330	10.00/22D	11	11.00/22		Own●		8-3.8	x3.7	332	7	5	306	190-3800	5-2.62	x4.2	Y	Own		5	Own		SF	H	7.17-7	67	Own		O41HV	485	729		TX	66	9x3x¼		L
	C-900 (c. f.)																																	
59	Cab		116	156	29000	▲6780	11.00/22D	12	12.00/22		Own●		8-3.8	x3.7	332	7	5	306	190-3800	5-2.62	x4.2	Y	Own		5	Own		SF	H	7.67-7	17	Own		O41HV	542	829		TX	66	9x3x¼		L

(Turn to Page 148, Please)

For Key to References and Abbreviations See Page 147

Another concrete example –
Ford Parts Keep Fleets On The Go!

"We've found that Genuine Ford Parts go in faster and easier— stay in longer. Our books prove it," says James D. Parker, Pine Hill Concrete Mix Corp., Buffalo, N. Y.

Like good fleet men everywhere, Mr. Parker realizes that when your fleet's on the road and out of the repair shop, it's earning its keep. That's why it pays to keep your fleet in Genuine Ford Parts.

Because Genuine Ford Parts are engineered as the *right replacements* for the original parts in your Fords, they install easily, quickly . . . cut costly down-time.

What's more, Genuine Ford Parts are made right to really *last. Before* being approved for manufacture they have to "prove themselves" in exhaustive track tests at Ford laboratories.

Genuine Ford Parts are readily available through Ford Dealers *everywhere!*

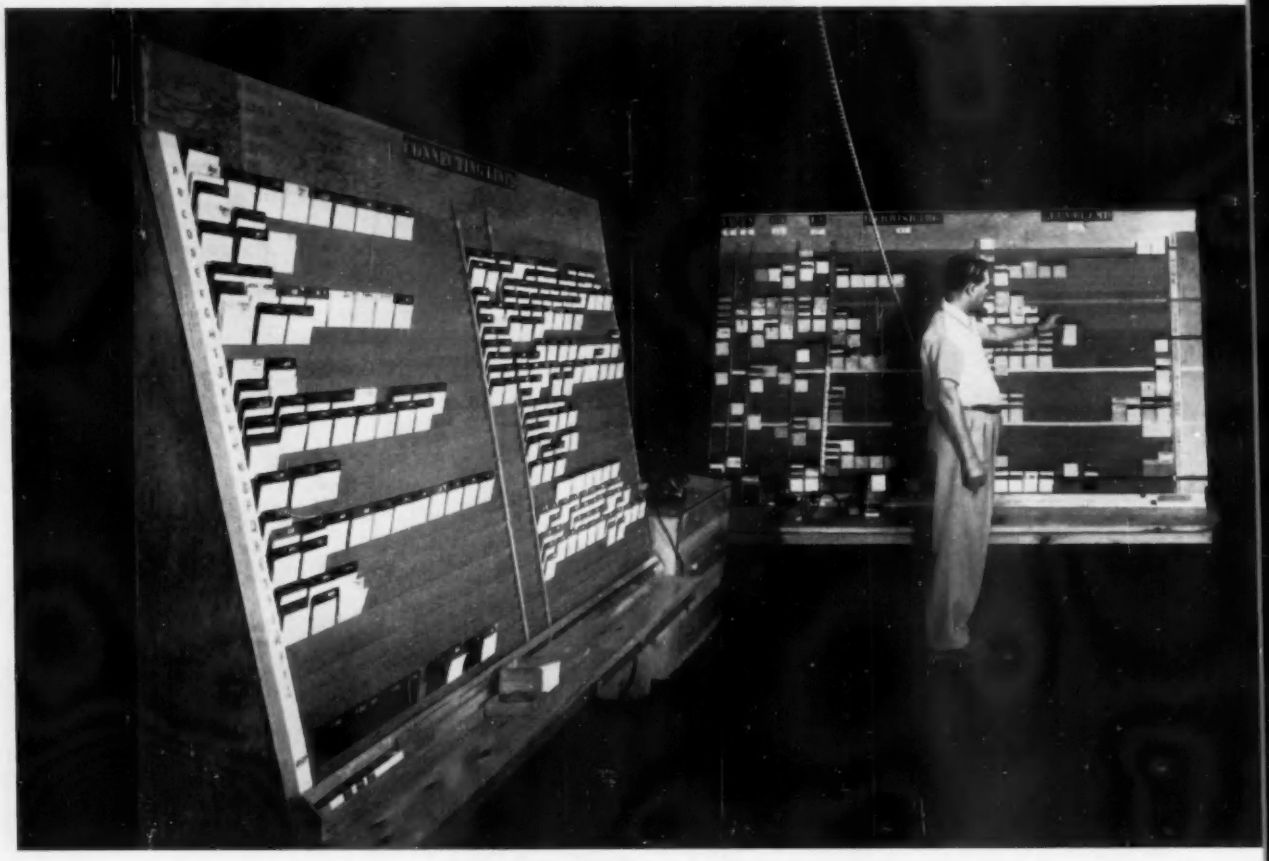
Pine Hill Concrete finds there's no substitute for Genuine Ford Parts



KEEP YOUR FLEET ON ITS FEET

GENUINE Ford PARTS

Bell System private line telephone



Using Bell System private line telephone and a unique dispatching room, Shirks Motor Express has instant communications over its far-flung freight system



This is the "Command Post" or control center of Shirks Motor Express Corp., Lancaster, Pa.

Information, flowing in from 23 terminals over five private line telephone circuits, is posted instantly. Throughout the day, the dispatcher receives up-to-the-minute information about every load being handled. He issues instructions, rearranges routings. Twenty-four hours a day he plots and co-ordinates the operations of the 1200 Shirks units.

Private line telephone service is also used to transmit quickly O.S.&D. claims, tracing reports, general administrative matters, equipment and maintenance records. Although Shirks operates over most of the northeast quarter of the nation, private line telephone enables the company to function as a fast-moving, closely co-ordinated unit—getting maximum efficiency from its truck fleet.

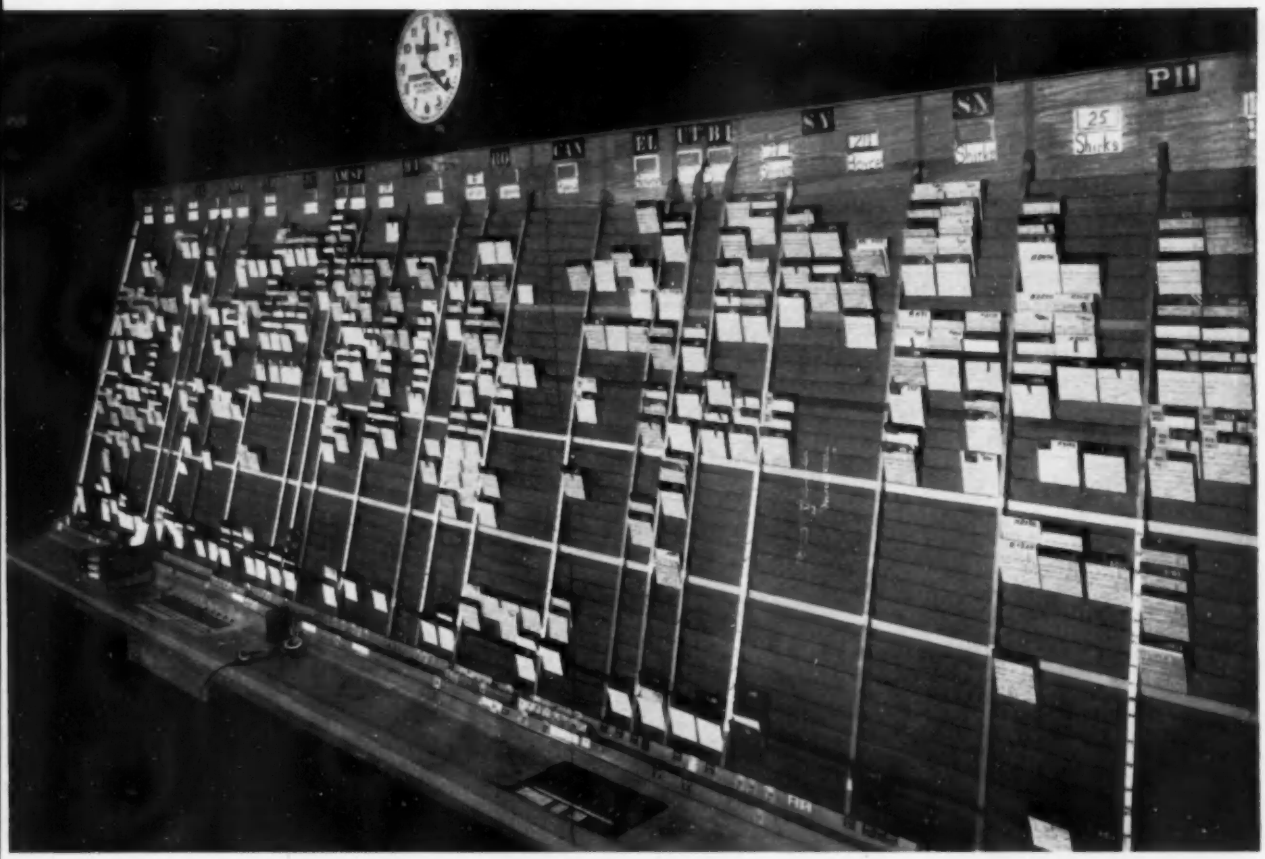
Nerve center is this unique dispatching center—lined on three sides with floor-to-ceiling display boards. The boards are slotted to hold cards which carry complete information about each vehicle. As the dispatcher receives his information over the telephone, he makes changes in the board. It continually mirrors the entire operation at any given time.

Sums up President Harry T. Waters:

"Private wire service is essential to the efficient operation of our vast motor freight system.

"With 1200 vehicles operating around the clock among our terminals in seven states, centralized control through instant communication is of great

service makes this a command post



As the Shirks dispatcher receives reports over the telephone, he uses color coded cards to maintain up-to-the-minute information on all moving vehicles.

importance. With our private line service, sales and supervisory conferences, likewise, are accomplished in a minimum of time, free of the expense of transporting and quartering personnel."

• • •

You can find out how Bell System services can fill your needs by calling your Bell Telephone business office. A communications engineer is ready to discuss your oral and written communication needs and the best ways of taking care of them. His survey and recommendation are yours without cost... without obligation.

BELL TELEPHONE SYSTEM

TELEPHONE TELETYPEWRITER

ANOTHER LOW-COST WAY TO BUILD TRUCKING BUSINESS

Regular telephone service is a valuable, low-cost aid to the trucker whose size of operation does not require private line service. Drivers can telephone the dispatcher to check on pickups, return loads.

Salesmen can use the telephone to solicit business. Credit managers to help collect accounts. And it's a low-cost method of keeping customers informed.

The telephone is quick, efficient, and easy to use.

LONG DISTANCE RATES ARE LOW

Here are some examples:

Lancaster, Pa., to New York	**65¢**
Cleveland to Indianapolis	**90¢**
Chicago to Pittsburgh	**$1.15**
Denver to Kansas City	**$1.35**
Boston to Detroit	**$1.40**

These are the *daytime* Station-to-Station rates for the first three minutes. They do not include the 10% federal excise tax.

CALL BY NUMBER. IT'S TWICE AS FAST.

(Continued from Page 144)

Line Number	MAKE AND MODEL	Chassis List Price	WHEEL-BASE Minimum Standard	WHEEL-BASE Maximum Standard	Gross Vehicle Weight for Normal Service	Chassis Weight (See definition)	TIRE SIZES D-dual rear S-single rear Standard Front and Rear	TIRE SIZES Maximum Speed Tire Size (Duals unless noted)	ENGINE DETAILS Make and Model	No. of Cylinders, Bore and Stroke	Displacement	Comp. Ratio	Torque lb. ft.	Max. Brake H.P. at R.P.M. Given	Main Bearings Number Diameter and Length	Governor Standard	TRANSMISSION Make and Model	Forward Speeds	REAR AXLE Make and Model	Gear and Type	Drive & Torque	Gear Ratio Range in High	FRONT AXLE Make and Model	BRAKES SERVICE Make Location Type Operation	Lining Area	Drum Area	Drum Material	Hand Location Type	C-A Dimensions (Min. Std. W. B.)	FRAME Side Rail Dimensions	Type
	Ford—Cont'd																														
	B-500 School Bus																														
1	Bus Chassis		154	154	13000	3940	7.00	22D	7.00	22	Own	6–3.62x3.6	223	7.8	202	133–4000	4–2.5x3.98		Own	4	Own	HF	H	6.20–6.80	Own	O4IHV	366	561		TX	128▼	9¼x2⅜x¼	C
2	Bus Chassis		154	154	13000	4065	7.00	22D	7.00	22	Own	8–3.62x3.3	272	7.8	260	167–4400	5–2.5x3.57		Own	4	Own	HF	H	5.83–6.20	Own	O4IHV	366	561		TX	128▼		
	B-600 School Bus																														
3	Bus Chassis		192	220	17000	4530	8.00	22D	9.00	22	Own■	6–3.62x3.6	223	7.8	202	133–4000	4–2.5x3.98		Own	4	Own	HF	H	6.80–7.20	Own	O4IHV	366	561		TX	166△	9⅞x2⅜x⅞	C
4	Bus Chassis		192	220	17000	4630	8.00	22D	9.00	22	Own■	8–3.62x3.3	272	7.8	260	167–4400	5–2.5x3.57		Own	4	Own	HF	H	6.20–6.80	Own	O4IHV	366	561		TX	166△	9⅞x2⅜x⅞	C
	B-700 School Bus																														
5	Bus Chassis		245	245	21000	5600	8.00	22D	10.00	22	Own♣	8–3.62x3.3	272	7.6	247	158–3800	5–2.5x3.57	Y	Own	4	Own	HF	H	** –7 17	Own	O4IHV	444	697		TX	217	9x3x⅛	L
	B-750 School Bus																														
6	Bus Chassis		245	245	21000	5905	9.00	22D	10.00	22	Own	8–3.62x3.7	302	7.5	279	175–3800	5–2.62x4.2	Y	Own	4	Own	HF	H	** –7 17	Own	O4IHV	444	697		TX	217▼	9x3x⅛	L
	P-350 Par. Del.																														
7	W/S		104	122	8000	2970	7.00	18D	8.00	20	Own	6–3.62x3.6	223	7.8	202	133–4000	4–2.5x3.98		Own	3	Own	HF	H	4.88–5.88	Own	O4IHV	198	305		TX	88♯	6x2¼x⅛	C
	P-500 Par. Del.																														
8	W/S		130	130	15000	3940	8.00	20S	8.00	20	Own	6–3.62x3.6	223	7.8	202	133–4000	4–2.5x3.98		Own	3	Own	HF	H	6.20–6.80	Own	O4IHV	322	355		TX	114▼	9¼x2⅜x¼	C
9	Kenworth (D) ♦521		153½	255	33000	12000	10.00	20	11.00	22	Cum NHB-600	6–5½x6	743	16	535	200–2100	7–4½x13½	Y	BL 8241	12	Tim R200P	H2F	H	5.91–9.76	Tim Fe900TW	BW4IA	716	1178	a	TD	67¾	9¼x3¼x⅛	C
10	♦585		153½	255	33000	10700	10.00	20	11.00	22	H8 590-GV-3	6–5x5	590	16	490	232–2800	7–3¼x12½	Y	Fu 5-C720	15	Tim R200P	H2F	H	5.91–9.76	Tim Fe900TW	BW4IA	716	1178	a	TD	67¾	9¼x3¼x⅛	C
11	(D) *801		158		73400	37400	†		†		Cu NHBHD-600	6–5½x6	743	16	535	200–2100	7–4½x13½		Fu 10F1220▲	10	Own	H2F	R	** –19 .2	Tim Fu900	BW4IA	1298	1870	C	FD			C
12	(D) *802		168		94000	45000			††			6–5½x6	743	12	800	300–2100	7–4½x13½		‡‡		Own	H2F	R	** –19 .2	Tim Fu900W	BW4IA	1298	1870	C	FD			C
13	(D) *802-A		168		94000	45000			††		**	6–5½x6	743	12	800	300–2100	7–4½x13½		Fu 10F1220	10	Own	H2F	R	** –19 .2	Tim Fu900W	BW4IA	1298	1870	C	FD			C
14	Peterbilt (D) 280		175	Opt	27000	12500	10.00	20D	11.00	22	Cum NHB600	6–5½x6	743	17	500	200–2100	7–4½x16½	Y	Spi 8041	12	TimR-230DPA	2F	R	5.91–6.51	TimFe900DPA	BW4IA	738	1052		TD	86½	10½x3⅛x⅞	CT
15	280 (coe)		114	Opt	27000		10.00	20	11.00	22	Cum NHB600	6–5½x6	743	17	500	200–2100	7–4½x16½	Y	Spi 8041	12	TimR-230DPA	2F	R	5.91–6.51	TimFe900DPA	BW4IA	738	1052		TD	69½	10½x3⅛x⅞	CT
16	281		165	Opt	27000	10450	10.00	20	11.00	22	Cum NHB600	6–5½x6	743	17	500	200–2100	7–4½x16½	Y	Spi 8045	12	Tim R-230P	2F	R	5.91–6.51	Tim FE900N	BW4IA	738	1052		TD	86½	10½x3⅛x⅞	CT
17	Reo F-20-1		125	185	16000	▲5355	8.22	5	9.22	5	Own 255‡	6–3⅝x4⅛	255	6.7	189	107–3400	7–2⅛x9	408	Y WG-T98A	4	Tim E-100	HF	H	6.2–7.2	Tim 30000	LT4IVH	382	552	var	TX	60⅝	9x3x⅛	T
18	F-20-2		125	185	17000	▲5355	8.22	5	9.22	5	Own 255‡	6–3⅝x4⅛	255	6.7	189	107–3400	7–2⅛x9	408	Y WG-T98A	4	Tim E-100	HF	H	6.2–7.2	Tim 30000	LT4IVH	382	552	var	TX	60⅝	9x3x⅛	T
19	F-20-3		125	185	18000	▲5585	8.22	5	10.22	5	Own 255‡	6–3⅝x4⅛	255	6.7	189	107–3400	7–2⅛x9	408	Y WG-T98A	4	Tim E-100	HF	H	6.2–7.2	Tim 31104	LT4IVH	388	602	var	TX	60⅝	9x3x⅛	T
20	F-20T		125	125	16000	▲6215	8.22	5	9.22	5	Own 255♣	6–3⅝x4⅛	255	6.7	189	107–3400	7–2⅛x9	408	Y WG-T98A	4	Tim E-100	HF	H	6.13–8.10	Tim 30000	LT4IVH	382	552	var	TX	60⅝	9x3x⅛	T
21	F-22-1		130	185	20000	▲6295	10.22	5	11.22	5	Own 292♣	6–3⅝x4⅛	292	6.5	224	124–3300	7–2⅛x9	408	Y Cla 205V	5	Tim H-140	HF	H	6.16–7.2	Tim 31104	LT4IVH	406	640	var	TX	65⅝	9x3x⅛	T
22	F-22-2		130	185	21000	▲6295	10.22	5	11.22	5	Own 292♣	6–3⅝x4⅛	292	6.5	224	124–3300	7–2⅛x9	408	Y Cla 205V	5	Tim H-140	HF	H	6.16–7.2	Tim 31104	LT4IVH	406	640	var	TX	65⅝	9x3x⅛	T
23	F-22-3		130	185	21000	▲6330	10.22	5	11.22	5	Own 292♣	6–3⅝x4⅛	292	6.5	224	124–3300	7–2⅛x9	408	Y Cla 205V	5	Tim H-140	HF	H	6.16–7.2	Tim 32500	LT4IVH	410	644	var	TX	65⅝	9x3x⅛	T
24	F-22T		130	130	20000	▲7095	10.22	5	11.22	5	Own 292♣	6–3⅝x4⅛	292	6.5	224	124–3300	7–2⅛x9	408	Y Cla 205V	5	Tim H-340	HFd	H	6.16–8.22	Tim 31104	LT4IVH	406	640	var	TX	65⅝	9x3x⅛	T
25	F-22R-1		130	185	22000	▲6590	11.22	5	11.24	5	Own 331♣‡‡	6–4⅛x4⅛	331	6.4	264	140–3200	7–2⅛x9	408	Y Cla 205V	5	Tim L-140	HF	H	6.16–7.2	Tim 32500	LT4IVH	480	748	var	TX	65⅝	9x3x⅛	T
26	F-22R-2		130	185	24000	▲6590	11.22	5	11.24	5	Own 331♣‡‡	6–4⅛x4⅛	331	6.4	264	140–3200	7–2⅛x9	408	Y Cla 205V	5	Tim L-140	HF	H	6.16–7.2	Tim FD900	LT4IVH	588	876	var	TX	65⅝	9x3x⅛	T
27	F-22R-3		130	185	26000	▲6880	11.22	5	11.24	5	Own 331♣‡‡	6–4⅛x4⅛	331	6.4	264	140–3200	7–2⅛x9	408	Y Cla 205V	5	Tim L-140	HFd	H	5.99–8.73	Tim FD900	LT4IVH	588	876	var	TX	65⅝	9x3x⅛	T
28	F-22RT		130	130	22000	▲7515	11.22	5	11.24	5	Own 331♣‡‡	6–4⅛x4⅛	331	6.4	264	140–3200	7–2⅛x9	408	Y Cla 205V	5	Tim L-340	HFd	H	5.99–8.73	Tim 32500	LT4IVH	480	748	var	TX	65⅝	9x3x⅛	T
29	F-50-1		130	185	28000	▲7715	11.22	5	12.22	5	Own 160■	6–4⅛x4⅛	331	6.7	290	160–3200	7–2¼x9	☆	Y Spi 3152	5	Tim QT-140	HF	H	6.16–7.8	Tim FD-900	TW84IA	610	1083	var	TX	65⅝	9¼x3⅛x⅞	T
30	F-50-2		130	185	30000	▲7715	11.22	5	12.22	5	Own 160■	6–4⅛x4⅛	331	6.7	290	160–3200	7–2¼x9	☆	Y Spi 3152	5	Tim QT-140	HF	H	6.16–7.8	Tim FD-900	TW84IA	610	1083	var	TX	65⅝	9¼x3⅛x⅞	T
31	F-50-3		130	185	30000	▲7785	11.22	5	12.22	5	Own 160■	6–4⅛x4⅛	331	6.7	290	160–3200	7–2¼x9	☆	Y Spi 3152	5	Tim QT-140	HF	H	6.16–7.8	Tim FD-900	TW84IA	610	1083	var	TX	65⅝	9¼x3⅛x⅞	T
32	F-50-T		130	130	28000	▲8380	11.22	5	12.22	5	Own 160■	6–4⅛x4⅛	331	6.7	290	160–3200	7–2¼x9	☆	Y Spi 3152	5	Tim QT-340	HFd	H	6.0–9.01	Tim FD-900	TW84IA	672	1083	var	TD	72	9¼x3⅛x⅞	C
33	A-600		139	187	28000	▲8575	11.22	5	12.24	5	Own OV-195▼	8–3⅝x4⅛	390	7.3	345	195–3200	5–3x5	7	Y Spi 6352	5	Tim QT-140	HF	H	6.16–7.8	Tim FD-900	TW84IA	672	1083	var	TD	72	9¼x3⅛x⅞	C
34	A-601		139	187	30000	▲8575	11.22	5	12.24	5	Own OV-195▼	8–3⅝x4⅛	390	7.3	345	195–3200	5–3x5	7	Y Spi 6352	5	Tim QT-140	HF	H	6.16–7.8	Tim FD-900	TW84IA	672	1083	var	TD	72	9¼x3⅛x⅞	C
35	A-602		139	187	30000	▲8590	11.22	5	12.24	5	Own OV-195▼	8–3⅝x4⅛	390	7.3	345	195–3200	5–3x5	7	Y Spi 6352	5	Tim QT-140	HF	H	6.16–7.8	Tim FE-900	TW84IA	672	1083	var	TD	66	9¼x3⅛x⅞	C
36	A-603		133	151	28000	▲9420	11.22	5	12.24	5	Own OV-195▼	8–3⅝x4⅛	390	7.3	345	195–3200	5–3x5	7	Y Spi 6352	5	Tim QT-340	HFd	H	6.0–9.01	Tim FD-900	TW84IA	672	1083	var	TD	72	9¼x3⅛x⅞	C
37	A-607		151	187	26000	▲8225	10.22	5	11.24	5	Own OV-200▼	8–3⅝x4⅛	390	7.3	345	200–3400	5–3x5	7	Y Spi 6352	5	Tim L-140	HF	H	6.16–7.2	Tim FD-900	LT4IVH	588	876	var	TD	84	9¼x3⅛x⅞	C
38	A-700		139	187	30000	▲8760	11.22	5	12.24	5	Own OV-195▼	8–3⅝x4⅛	390	7.3	345	195–3200	5–3x5	7	Y Spi 6352	5	Tim R-140	HF	H	6.16–7.4	Tim FD-900	TW84IA	672	1083	var	TD	72	9¼x3⅛x⅞	C
39	A-702		139	187	32000	▲8760	11.22	5	12.24	5	Own OV-195▼	8–3⅝x4⅛	390	7.3	345	195–3200	5–3x5	7	Y Spi 6352	5	Tim 8LD	HF	H	6.16–7.4	Tim FD-900	TW84IA	672	1083	var	TD	72	9¼x3⅛x⅞	C
40	A-702		139	187	32000	▲8775	11.22	5	12.24	5	Own OV-195▼	8–3⅝x4⅛	390	7.3	345	195–3200	5–3x5	7	Y Spi 6352	5	Tim 8QD	HF	H	6.16–7.4	Tim FE-900	TW84IA	672	1083	var	TD	72	9¼x3⅛x⅞	C
41	A-703		133	151	30000	▲9690	11.22	5	12.24	5	Own OV-195▼	8–3⅝x4⅛	390	7.3	345	195–3200	5–3x5	7	Y Spi 6352	5	Tim R-140	HFd	H	5.99–8.83	Tim FD-900	TW84IA	672	1083	var	TD	66	9¼x3⅛x⅞	C
42	F-50D-1		130	185	28000	▲9005	11.22	5	12.24	5	Cum JT-6-B	6–4⅛x5	401	16	412	175–2500	7–3¼x7	8	Y Spi 6352	5	Tim R-140	HF	H	5.28–6.83	Tim FD-900	TW84IA	610	1083	var	TD	65⅝	9¼x3⅛x⅞	T
43	F-50D-2Q		130	185	30000	▲9005	11.22	5	12.24	5	Cum JT-6-B	6–4⅛x5	401	16	412	175–2500	7–3¼x7	8	Y Spi 6352	5	Tim RT-340	HF	H	5.28–6.83	Tim FD-900	TW84IA	610	1083	var	TD	65⅝	9¼x3⅛x⅞	T
44	F-50D-2R		130	185	32000	▲9140	11.22	5	12.24	5	Cum JT-6-B	6–4⅛x5	401	16	412	175–2500	7–3¼x7	8	Y Spi 6352	5	Tim QT-140	HF	H	5.28–6.83	Tim FD-900	TW84IA	672	1083	var	TD	65⅝	9¼x3⅛x⅞	T
45	F-50D-3		130	185	30000	▲9075	11.22	5	12.24	5	Cum JT-6-B	6–4⅛x5	401	16	412	175–2500	7–3¼x7	8	Y Spi 6352	5	Tim QT-140	HF	H	5.28–6.83	Tim FE-900	TW84IA	610	1083	var	TD	65⅝	9¼x3⅛x⅞	T
46	F-50D-T		130	130	28000	▲9620	11.22	5	12.24	5	Cum JT-6-B	6–4⅛x5	401	16	412	175–2500	7–3¼x7	8	Y Spi 6352	5	Tim R-140	HFd	H	5.63–7.37	Tim FD-900	TW84IA	610	1083	var	TD	65⅝	9¼x3⅛x⅞	T
47	F-506D		155	203	42000	▲12290	10.22	5	11.22	5	Cum JT-6-B	6–4⅛x5	401	16	412	175–2500	7–3¼x7	8	Y Spi 3152	5	Tim QT-140	F2	T	7 33–9 33	Tim FD-900	TW86IA	862	1394	var	TD	90⅝	9x3x⅛	Ce♣
48	F-536D		155	200	48000	▲13620	11.22	5	12.24	5	Cum JT-6-B	6–4⅛x5	401	16	412	175–2500	7–3¼x7	8	Y Spi 3152	5	Tim QT-340	HFd	H	6.0–9.01	Tim FD-900	TW84IA	672	1083	var	TD	74	9¼x3⅛x⅞	C
49	AC-603		108	154	28000	▲9605	11.22	5	12.24	5	Own OV195▼	8–3⅝x4⅛	390	7.3	345	195–3200	5–3x5	7	Y Spi 6352	5	Tim QT-340	HFd	H	5.99–8.83	Tim FD-900	TW84IA	672	1083	var	TD	74	9¼x3⅛x⅞	C
50	AC-703		108	154	30000	▲9875	11.22	5	12.24	5	Own OV195▼	8–3⅝x4⅛	390	7.3	345	195–3200	5–3x5	7	Y Spi 6352	5	Tim RT-340	HFd	H	5.99–8.83	Tim FD-900	TW84IA	672	1083	var	TD	74	9¼x3⅛x⅞	C
51	F-120L		187	187	18000	▲5870	8.22	5	10.22	5	Own 255	6–3⅝x4⅛	255	6.7	189	107–3400	7–2.5x9	408	Y WG T-98A	4	Tim E-100	HF	H	6.8–7.2	Tim 31104	LT4IVH	388	602	var	TX	160⅝	9¼x3⅛x⅞	C
52	F-120C		219	219	18500	▲6200	8.22	5	10.22	5	Own 255	6–3⅝x4⅛	255	6.7	189	107–3400	7–2.5x9	408	Y WG T-98A	4	Tim E-100	HF	H	6.8–7.2	Tim 32500	LT4IVH	392	606	var	TX	102⅝	9¼x3⅛x⅞	C
53	F-120H		238	238	18500	▲6335	8.22	5	10.22	5	Own 255	6–3⅝x4⅛	255	6.7	189	107–3400	7–2.5x9	408	Y WG T-98A	4	Tim E-100	HF	H	6.8–7.2	Tim 32500	LT4IVH	392	606	var	TX	211⅝	9¼x3⅛x⅞	C
54	F-122H		238	238	21000	▲6730	9.22	5	11.22	5	Own 292	6–3⅝x4⅛	292	6.5	224	124–3300	7–2.5x9	408	Y Cla 205	4	Tim H-140	HF	H	6.8–7.2	Tim 32500	LT4IVH	480	748	var	TX	211⅝	9¼x3⅛x⅞	C
55	F-122J		256	256	23000	▲6845	9.22	5	11.22	5	Own 292	6–3⅝x4⅛	292	6.5	224	124–3300	7–2.5x9	408	Y Cla 205	4	Tim H-140	HF	H	6.8–7.2	Tim 32500	LT4IVH	480	748	var	TX	229⅝	9¼x3⅛x⅞	C
56	Studebaker 2E5		112	122	4800	2070	6.00	16S	6.50	16S	Own 1E	6–3x4⅛	186	7.5	152	92–3800	4–3⅛x4½		N Own	3	Own	H½	H	4.27–4.89	Own	B4IH	178	276	Co	2I	40	7⅛x2½x⅛	T
57	2E6		112	122	5000	2290	6.00	16S	6.50	16S	Own 4E	6–3⅛x4⅛	246	7.5	204	106–3400	4–2⅛x5		N Own	3	Own	H½	H	4.09–4.27	Own	B4IH	178	276	Co	2I	40	7⅛x2½x⅛	T
58	2E7		112	122	5000	2380	6.00	16S	6.50	16S	Own 2E	8–3⅛x2⅛	224	7.5	202	140–4500	5–2½x5⅞		N Own	3	Own	H½	H	4.09–4.27	Own	B4IH	178	276	Co	2I	40	7⅛x2½x⅛	T
59	2E10		122	122	6700	2315	7.00	16S	7.50	17S	Own 1E	6–3x4⅛	186	7.5	152	92–3800	4–3⅛x4½		N Own	3	Own	H½	H	4.27–4.88	Own	WE4IH	198	314	Co	2I	50	7⅛x2½x⅛	T
60	2E11		122	122	7000	2535	7.00	16S	7.50	17S	Own 2E	8–3⅛x2⅛	224	7.5	202	140–4500	5–2½x5⅞		N Own	3	Own	H½	H	4.10–4.88	Own	WE4IH	198	314	Co	2I	50	7⅛x2½x⅛	T
61	2E12		122	122	7000	2625	7.00	16S	7.50	17S	Own 2E	8–3⅛x2⅛	224	7.5	202	140–4500	5–2½x5⅞		N Own	3	Own	H½	H	4.10–4.88	Own	WE4IH	198	314	Co	2I	50	7⅛x2½x⅛	T
62	2E13		131	131	9600	3140	7.00	17S	7.50	16	Own 3E	8–3⅛x3⅛	259	7.5	236	156–4500	5–2½x5⅞		N Own	4	Own	H½	H	** –5 .14	Own	WE4IH	231	355	*	TX	60½	8⅞x2½x⅛	T
63	2E14		131	131	9600	3050	7.00	17S	7.50	16	Own 4E	6–3⅛x4⅛	246	7.5	204	106–3400	4–2⅛x5		N Own	4	Own	H½	H	5.14–5.83	Own	WE4IH	231	355	*	TX	60½	8⅞x2½x⅛	T
64	2E28		131	155	14000	3800	7.50	17D	7.50	20	Own 3E	8–3⅛x3⅛	259	7.5	236	156–4500	5–2½x5⅞		N Own	4	Own●	SF	H	5.14–5.83	Own	WE4IH	294	442	Ce	TX	60½	8⅞x2½x⅛	T
65	2E28B		131	155	15000	3840	7.50	17D	8.25	20	Own 3E	8–3⅛x3⅛	259	7.5	236	156–4500	5–2½x5⅞		N Own	4	Own●	SF	H	5.14–5.83	Own	WE4IH	294	442	Ce	TX	60½	8⅞x2½x⅛	T
66	2E38		131	171	16000	4410	7.50	20▼	9.00	20	Own 5E	8–3⅛x3⅛	259	7.5	236	156–4500	5–2½x5⅞		Y Own	4	Own●	HF	H	** –6 .80	Own	WE4IH	368	553	Ce	TX	60½	8⅞x2½x⅛	T
67	2E38B		131	212	18000	4410	7.50	20▼	9.00	20	Own 5E	8–3⅛x3⅛	259	7.5	236	156–4500	5–2½x5⅞		Y Own	4	Own●	HF	H	** –6 .80	Own	WE4IH	368	553	Ce	TX	60½	8⅞x2½x⅛	T
68	Ward La Fr. D-1		149	220	25000	▲9500	10.00	20	11.00	20	Con T6427	6–4⅞x4⅛	427	5.1	340	152–2600	7–2⅛x13½		Y Ful 5A430	5	Tim Q-100	R	R	** –6 .83	Tim FD900	BW4A	600	928	C	TM	68¼	9¼x3⅜x¼	T
69	D-1C		149	220	29000	▲9500	11.00	20	11.00	22	Con T6427	6–4⅞x4⅛	427	5.1	340	152–2600	7–2⅛x13½		Y Ful 5A430	5	Tim U-200	82	R	** –7 .08	Tim FD900	BW4A	673	1031	C	TM	68¼	10x3¼x⅛	T
70	D-3		149	220	29000	▲10000	11.00	20	11.00	22	Con R6572	6–4¼x5½	572	5.9	440	189–2600	7–3¼x14½		Y Ful 5C650	5	Tim R-200	82	R	** –7 .84	Tim FD900	BW4B	673	1031	C	TM	68¼	10x3⅛x⅛	T
71	D-3B		149	220	29000	▲10000	11.00	20	11.00	22	Con R6602	6–4¼x5½	602	5.9	463	198–2600	7–3¼x14½		Y Ful 5C650	5	Tim R-200	82	R	** –7 .84	Tim FD900	BW4B	673	1031	C	TM	68¼	10x3⅛x⅛	T
72	(D) D-5		149	220	35000	▲12500	11.00	22	11.00	22	Cum HB600	6–4½x6	672	17	500	150–1800	7–4½x16¾		Y Ful 5C650	5	Tim R-200	82	R	** –6 .42	Tim 27463	BW4B	681	1041	C	TM	68¼	10x3⅛x⅛	T

(Turn to Page 150, Please)

For Key to References and Abbreviations See Page 141

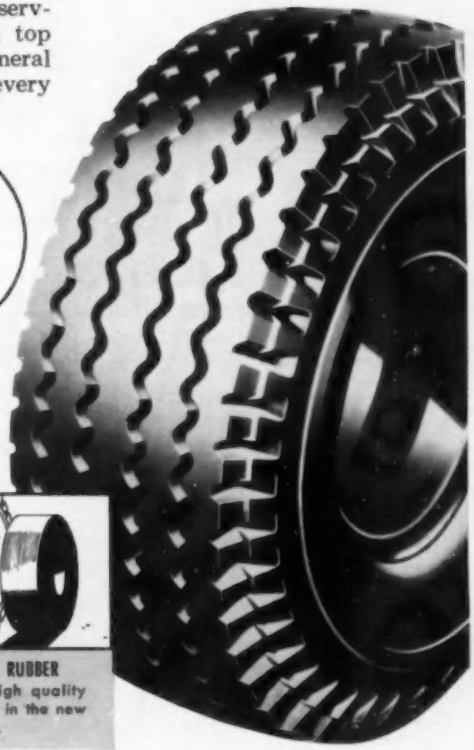
GETS EVERY LAST PAYLOAD PENNY FROM YOUR TIRES!

KRAFT SYSTEM RECAPPING

A GENERAL TIRE SERVICE

PROVED OVER BILLIONS OF BONUS MILES!

Like thousands of other fleet operators, you can depend on KRAFT System Recapping to deliver the absolute maximum in extra-profit bonus mileage. The one business-like, quality-controlled system rendering guaranteed service coast to coast, KRAFT keeps truck tires in top operating condition, run after run. Call your General Tire distributor, the man who can handle your every service and recapping need.



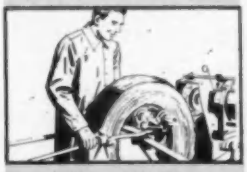
ONLY KRAFT GIVES YOU ALL FOUR!

- Extra-long mileage, top-quality materials
- Factory-approved equipment
- Factory-trained recappers
- Guaranteed service



CERTIFIED INSPECTION
Assures you that your tire can be recapped safely!

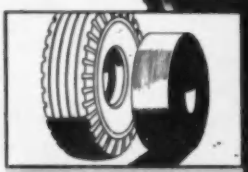
KRAFT SYSTEM RECAPPING IS AUTHORIZED ONLY BY THE GENERAL TIRE & RUBBER COMPANY



ACCURATE BUFFING
Precision buffing assures better adhesion of new tread to tire body.



EXPERT BALANCING
This alone means up to 25% more mileage.



NEW TIRE RUBBER
The same high quality rubber used in the new General tire.

(Continued from Page 148)

Line Number	MAKE AND MODEL	Chassis List Price	WHEEL-BASE Minimum Standard	WHEEL-BASE Maximum Standard	Gross Vehicle Weight for Normal Service	Chassis Weight (See definition)	TIRE SIZES D-dual rear S-single rear Standard Front and Rear	TIRE SIZES Maximum Authorized Tire Size (Duals unless noted)	ENGINE DETAILS Make and Model	No. of Cylinders, Bore and Stroke	Displacement	Comp. Ratio	Torque lb. ft.	Max. Brake H.P. at R.P.M. Given	Main Bearings Number Diameter and Length	Governor Standard	TRANSMISSION Make and Model	Forward Speeds	REAR AXLE Make and Model	Gear and Type	Drive & Torque	Gear Ratio Range in High	FRONT AXLE Make and Model	BRAKES SERVICE Make	Location	Type Operation	Lining Area	Drum Area	Drum Material	Hand Location Type	CA Dimensions (Min. Std. W. B.)	FRAME Side Rail Dimensions	Type
1	White-Freightliner (c.o.e.) WF-42		115	120		10800	10.00 20		Cum NHB	6-5½x6	743	13	575	200–2100	7-4½x16½	Y	Spi 8041	8	Tim R-330	8Fd	H	4.77–6.38	Tim FE900	O4rIA	645	1050	a	TD	73	8½x3½x¾	D
	Four-Wheel-Drive																															
2	Biederman PM62		162	162	40000	15040	10.00 20D	11.00 20	Cum NHB600	6-5½x6	743	16	535	200–2100	7-4½x13½	Y	Fu R950C	10	Tim 8W3458P	WF	L	** –6.17	Tim FE900	BW6IA	1082	1589	G	TD	62	10x3x⅜	B
3	Coleman G-55		150	160	34000	12000	11.00 20	12.00 20	Buda LO-525	6-4½x5½	5256	7	400	150–2200	7-3x7¼	Y	Fu 5A650	5	OW-289-CM	2		7 17-9 72	OW	TW1A	598	9214		FD	84	10x3x⅝	C
4	G-55		150	160	34000	12000	11.00 20	12.00 20	Wau 140GZ	6-4½x5½	5546	4.45	1188	2600		Y	Fu 4A86	4	OW-289-CM	2		7 17-9 72	OW	TW1A	598	921		FD	84	10x3x⅝	C
5	(D) D-55		150	160	34000	13000	11.00 20*	12 00 20	Cum HB600†	6-4¾x6	672	17	500	150–1800		Y	Fu 5A650■	5	OW-289-CM	2		7 17-9 72	OW	TW1A	598	921		FD	84	10x3x⅝	C
6	Dodge C-3-PW6		126	126	9500	3950	7.50 16S	9.00 16S	Own T-137	6-3½x4½	2307	6	198	111–3600	4-2½x4	8	Y	NP 420	4	Own T137	HF	H	4.89–5.83	Own TT-137	O4IH	210	310	Co	PX		1¼x2¾x6¾	C
7	C-3-HW6		156	174	18000	6375	8.22.5D	9.22.5	Own T-404	6-3⅞x4¾	2657		228	130–3600	4-2½x5	05	N	NP 420	4	Tim E-150	HF	H	** –6.8	Tim F-35B	O4IHV	306	557	c	PI		¼x3x9	C
8	C-3-HWS		156	174	18000	6450	8.22.5D	9.22.5	Own VT-404	8-3½x3¼	2597	6.24	163	169–4400	5-2¾x4	8	N	NP 420	4	Tim E-150	HF	H	** –6.8	Tim F-35B	O4IHV	306	557	c	PI		9½x3x¼	C
9	Fabco (c) FD50A		114	123	5800	3600	6.00/16	6.50/16	Chevrolet	6-3⅞x3¼	2367		200	112–3700	4-◆◆		N	Chevrolet*	8	Chevrolet	H½	H	** –3.9	Own RC	O4IH	158	259	Co	21F	39	5½	C
10	(c) FD50B			110	6000	3600	6.00/16	6.50/16	Ford	6-3 6x3 6	2237		5195	118–2800	4-2½x4			Ford*	8	Ford	H½	H	** –4.27	Own RF	O4IH	179	259		21M	41	5 9	C
11	(c) FD50B			110	6000	3600	6.00/16	6.50/16	Ford	8-3.5x3.1	2397		5215	122–4200	5-2½x3½			Ford*	8	Ford	H½	H	** –4.27	Own RF	O4IH	179	259		21M	41	5 9	C
12	(c) FD76A		123		8500	4000	6.00/16	7.50/17	Chevrolet	6-3⅞x3¼	2367		5200	112–3700	4-◆◆		N	Chevrolet*	8	Ford	Hyf	H	** –4.57	Own RC	O4IH	186	302	Co	21F	48	5½	C
13	(c) FD76B		118		8500	4000	6.50/16	7.50/17	Ford	6-3 6x3 6	2237		5195	118–3800	4-2½x4			Ford*	8	Ford	HF	H	** –4.88	Own RF	O4IH	196	302		TX	49	6	C
14	(c) FD75B		118		8500	4000	6.50/16	7.50/17	Ford	8-3.5x3.1	2397		5215	132–4200	5-2½x3½			Ford*	8	Ford	HF	H	** –4.88	Own RF	O4IH	196	302		TX	49	6	C
15	(c) FD101A		135		11400	4400	7.00/17	7.00/18	Chevrolet	6-3⅞x3¼	2367		5200	112–3700	4-◆◆		N	Chevrolet*	8	Chevrolet	Hyf	H	** –5.14	Own RC	O4IH	231	355		TX	61	7	C
16	(c) FD101B		130		11400	4400	7.00/17	7.50/16D	Ford	6-3 6x3 6	2237		5195	118–3800	4-2½x4			Ford*	8	Ford	HF	H	** –5.83	Own RF	O4IH	231	355		TX	61	7	C
17	(c) FD101B		130		11400	4400	7.00/17	7.50/16D	Ford	8-3.5x3.1	2397		5215	132–4200	5-2½x3½			Ford*	8	Chevrolet	Hyf	H	** –6.17	Own RC	O4IH	375	597	Co	TX	60	9½	C
18	(c) FD201A		130	172	19000	5700	7.50 20	9.00 20	Chevrolet	6-3½x3¼	2617		2220	135–4000	4-◆◆		N	Chevrolet*	10	Ford	HF	H	** –6.8	Own RF	O4IHV	366	561		TX	61	9¼	C
19	(c) FD201B		130	172	19000	5700	7.50 20	8.25 20	Ford	8-3.5x3.1	2397		5215	132–4200	5-2½x3½		Y	Ford*	10	Ford	HF	H	** –6.8	Own RF	O4IHV	366	561		TX	61	9¼	C
20	(c) FD201B		130	172	19000	5700	7.50 20	8.25 20	Ford	8-3 6x3 1	2567		5228	140–3900	5-2½x3½		Y	Ford*	10	Ford	HF	H	** –6.8	Own RF	O4IHV	366	561		TX	61	9	L
21	(c) FD251B		130	172	27000	7500	8.25 20	9.00 20	Ford	8-3 8x3.5	3177		2286	170–3900	5-2¾x4¾		Y	Ford*	10	Ford	SF	H	7.17–7.67	Own RF	O4IHV	485	729		TX	61	9	L
22	Federal T400R-1		157	205	44000	12690	10.00 20	11.00 22	Con T6427	6-4⅞x4½	427	6	450	170–3000	7-2½x13½		Y	Cla 290V	5	Tim 8QD	H2	L	5.78–9.21	Tim FE900	T4IA	1073	1550	a	D	84	10½x3½x⅞	P
23	T500R-1		157	205	45000	14305	10.00 20	11.00 22	Con U6501	6-4½x5¼	5016	1.41	318	2800–2800	7-2½x14½		Y	Ful 5A65	5	Tim 8QD	H2	L	5.78–9.21	Tim FE900	T4IA	1073	1550	a	D	84	10½x3½x⅞	P
24	T600R-1		157	216	60000	16097	11.00 22	12.00 24	Con R6692	6-4½x5½	6026	2.48	602	2100–2800	7-3¾x14½		Y	Ful 5A65	5	Tim SF134600	H2	L	8 07x11 6	Tim 27461	T4IA	1308	1888	a	D	84	10½x3½x⅞	P
25	T600R-4		157	216	60000	16585	11.00 22	12.00 24	Con R6602	6-4½x5½	6026	2.48	602	2100–2800	7-3¾x14⅞		Y	Ful 5A65	5	Tim SW456	W	L	4.71–8.2	Tim 27461	T4IA	1308	1888	a	D	84	10½x3½x⅞	P
26	FWD *140		142	Opt	14500	6250	7.50 20D	10.00 20S	Int BD240	6-3⅞x4⅜	2407	0.20	8131	3800	4-2¾x6⅜		Y	WG-T9	8	Own 13B	SF	H	** –6.17	Own 12B	T4IHV	286	442	a	T4	72¼	8x3x¼	T/H
27	U150		130	Opt	14500	6245	7.50 20D	10.00 20S	Int BD240	6-3⅞x4⅜	2407	0.20	8131	3800	4-2¾x6⅜		Y	WG-T9	8	Own 13B	SF	H	** –6.17	Own 12C	T4IHV	364	552	a	T4	60	8x3x¼	T/H
28	*181		154	Opt	18000	6550	8.25 20D	10.00 20S	Int BD308	6-3⅞x4½	3086	5.27	3150	3600	4-2 7x4¾		Y	Int F51C	5	Own 13C	SF	H	5.86–10.5	Own 12B	T4IHV	286	442	a	T4	84	8x3x¼	T/H
29	*182		154	Opt	18000	6550	8.25 20D	10.00 20S	Int BD308	6-3⅞x4½	3086	5.27	3150	3600	4-2 7x4¾		Y	Int F51C	5	Own 13C	SF	H	5.86–10.5	Own 12C	T4IHV	364	552	a	T4	84	8x3x¼	T/H
30	*202		154	Opt	20000	6695	8.25 20D	10.00 20S	Int BD308	6-3⅞x4½	3086	5.27	3150	3600	4-2 7x4¾		Y	Int F51C	5	Own 13C	SF	H	5.86–10.5	Own 12C	T4IHV	364	552	a	T4	84	8x3x¼	T/H
31	*232		154	Opt	23000	8070	9.00 20D	10.00 20	Int BD308	6-3⅞x4½	3086	5.27	3150	3600	4-2 7x4¾		Y	Ful 5A430	5	Own 23	SF	H	4.86–8.98	Own 22	Wg4IV	419	706	a	T4	84	9x3x¼	T/H
32	*233D		154	Opt	23000	8905	9.00 20D	10.00 20	GMC 3-71	3-4½x5	213	16	300	113–2000	4-3½x4		Y	Ful 5A430	5	Own 23	SF	H	4.86–8.98	Own 22	Wg4IV	419	706	a	T4	84	9x3x¼	T/H
33	*284		154	Opt	28000	8450	10.00 20D	11.00 20	Int RD372	6-4½x5½	3726	5.30	9165	3200	7-3¼x10¼		Y	Ful F52C	5	Own 23	SF	H	4.86–8.98	Own 22	Wg4IV	419	706	a	T4	91	9x3x¼	T/H
34	M284D		161	Opt	28000	9620	10.00 20D	11.00 20	GMC 4-71	4-4¼x5	284	16	380	150–2100	5-3½x5⅝		Y	Ful 5C650	5	Own 23	SF	H	4.86–8.98	Own 22	Wg4IV	419	706	a	T4	91	9x3x¼	T/H
35	M284		161	Opt	28000	8450	10.00 20D	11.00 20	Int RD372	6-4¼x5½	3726	5.30	9165	3200	7-3¼x10¼		Y	Ful F52C	5	Own 23	SF	H	4.86–8.98	Own 22	Wg4IV	419	706	a	T4	84	9x3x¼	T/H
36	*284D		154	Opt	28000	9620	10.00 20D	11.00 20	GMC 4-71	4-4¼x5	284	16	380	150–2100	5-3½x5⅝		Y	Ful 5C650	5	Own 23	SF	H	4.86–8.98	Own 22	Wg4IV	419	706	a	T4	84	9x3x¼	T/H
37	*285		154	Opt	28000	8840	10.00 20D	11.00 20	Int RD406	6-4½x4½	4056	5.33	8175	3200	7-3¼x10¼		Y	Ful F52C	5	Own 23	SF	H	4.86–8.98	Own 22	Wg4IV	419	706	a	T4	84	9x3x¼	T/H
38	*285D		154	Opt	28000	9230	10.00 20D	11.00 20	Cum JT6B	6-4½x5	401	15	407	175–2500	7-3¼x7 8		Y	Ful 5C650	5	Own 23	SF	H	4.86–8.98	Own 22	Wg4IV	419	706	a	T4	91	9x3x¼	T/H
39	M285		161	Opt	28000	8840	10.00 20D	11.00 20	Int RD406	6-4½x4½	4056	5.33	8175	3200	7-3¼x10¼		Y	Ful F52C	5	Own 33A	SF	H	4.18–12.2	Own 32A	Wg4IV	539	804	a	T4	84	10x3x⅛	CH
40	*305		154	Opt	30000	11400	11.00 20D	13.00 20S	Int RD406	6-4½x4½	4056	5.33	8175	3200	7-3¼x10¼		Y	Ful F54C	5	Own 33A	SF	H	4.18–12.2	Own 32A	Wg4IV	539	804	a	T4	84	10x3x⅛	CH
41	*326		154	Opt	32000	11500	11.00 20D	13.00 20S	Int RD450	6-4⅝x5	4506	2.38	7182	3000	7-3¼x10¼		Y	Ful F54C	5	Own 33A	SF	H	4.18–12.2	Own 32A	Wg4IV	539	804	a	T4	84	10x3x⅛	CH
42	*324D		154	Opt	32000	12480	11.00 20D	13.00 20S	GMC 4-71	4-4¼x5	284	16	380	150–2100	5-3½x5⅝		Y	Ful 5C650	5	Own 33A	SF	H	4.18–12.2	Own 32A	Wg4IV	539	804	a	T4	84	10x3x⅛	CH
43	*327D		154	Opt	32000	13280	11.00 20D	13.00 20S	Cum HRB600	6-5½x6	743	16	540	165–1800	7-4½x16⅛		Y	Ful 5C720	5	Own 33A	SF	H	4.85–14.1	Own 32	Wg4IHA	640	1105	a	T4	84	10x3x⅛	CH
44	*367		154	Opt	36000	12010	11.00 20D	13.00 20S	Int RD501	6-4½x5½	5016	5.44	4212	3000	7-3¼x10¼		Y	Ful 5C720	5	Own 33	SF	H	4.85–14.1	Own 32	Wg4IHA	640	1105	a	T4	84	10x3x⅛	CH
45	*368D		154	Opt	36000	13625	11.00 20D	13.00 20S	Cum HRB8600	6-5½x6	743	16	505	180–2000	7-4½x16⅛		Y	Ful F54C	5	Own 33A	SF	H	4.18–12.2	Own 32A	Wg4IV	539	804	a	T4	84	10x3x⅛	CH
46	S326		154	Opt	32000	11715	11.00 20D	13.00 20S	Int D4450	6-4⅝x5	4506	2.38	7182	3000	7-3¼x10¼		Y	Ful F54C	5	Own 33A	SF	H	4.18–12.2	Own 32A	Wg4IV	539	804	a	T4	84	10x3x⅛	CH
47	S324D		154	Opt	32000	12180	11.00 20S	13.00 20S	GMC 4-71	4-4¼x5	284	16	380	150–2100	5-3½x5⅝		Y	Ful 5C650	5	Own 33A	SF	H	4.18–12.2	Own 32A	Wg4IV	539	804	a	T4	84	10x3x⅛	CH
48	*408		154	Opt	40000	13920	12.00 20D	14.00 20S	Wau 1456CK	6-5¼x6	7796	2.59	5216	2000	7-3½x17¼		Y	Ful 10A1120	10	Own 33	SF	H	5.71–8.53	Own 32	Wg4IHA	640	1105	a	T4	84	10x3x⅛	CH
49	*409		154	Opt	40000	13920	12.00 20D	14.00 20S	Wau 1456GKB	6-5¼x6	7796	2.59	5240	2400	7-3½x17¼		Y	Ful 10A1120	10	Own 33	SF	H	5.71–8.53	Own 32	Wg4IHA	640	1105	a	T4	84	10x3x⅛	CH
50	*406D		154	Opt	40000	14420	12.00 20D	14.00 20S	GMC 6-71	6-4½x5	426	16	570	227–2250	7-3½x7¼		Y	Ful 10A1120	10	Own 33	SF	H	5.71–8.53	Own 32	Wg4IHA	640	1105	a	T4	84	10x3x⅛	CH
51	*409D		154	Opt	40000	14590	12.00 20D	14.00 20S	Cum NHB600	6-5½x6	743	16	533	200–2100	7-4½x16½		Y	Ful 10A1120	10	Own 33	SF	H	5.71–8.53	Own 32	Wg4IHA	640	1105	a	T4	84	10x3x⅛	CH
	Marmon-Herr.																															
52	M104		110	118	5300	3800	6.50/16	7.10/15	Ford	8-3.62x3.3	2727		8260	167–4400	5-28 04		N	Ford	4	Ford	H	H	** –4.27	Own	F4H	179	259	c	X	40½	5⅄x2¼x⅄	C
53	6M104		110	118	5300	3800	6.50/16	7.10/15	Ford	6-3.62x3.6	2237		8202	133–4000	4-44 83		N	Ford	4	Ford	H	H	** –4.27	Own	F4H	179	259	a	X	40½	5⅄x2¼x⅄	C
54	M254		118		8000	4200	7.50/17	8.00/17	Ford	8-3.62x3.3	2727		8260	167–4400	5-28 04		N	Ford	8	Ford	H	H	** –4.88	Own	F4H	182	283	a	PX	48½	6x2¼x⅄	C
55	6M254		118		8000	4200	7.50/17	8.00/17	Ford	6-3.62x3.6	2237		8202	133–4000	4-44 83		N	Ford	8	Ford	H	H	** –4.88	Own	F4H	182	283	a	PX	48½	6x2¼x⅄	C
56	M354		130		8000	4300	7.00/18	8.00/17	Ford	8-3.62x3.3	2727		8260	167–4400	5-28 04		N	Ford	8	Ford	H	H	** –5.83	Own	F4H	224	335	a	PX	60½	7x2¾x⅄	C
57	6M354		130		8000	4300	7.00/18	8.00/17	Ford	6-3.62x3.6	2237		8202	133–4000	4-44 83		N	Ford	8	Ford	H	H	** –5.83	Own	F4H	224	335	a	PX	60½	7x2¾x⅄	C
58	M504		130	154	17500	5700	7.00 22	8.00/22	Ford	8-3.62x3.3	2727		8260	167–4400	5-28 04		N	Ford	8	Ford	H	H	** –5.83	Own	F4H	352	553	a	PX	84½	9¼x2½x¾	C
59	6M504		130	154	17500	5700	7.00 22	8.00/22	Ford	6-3.62x3.6	2237		8202	133–4000	4-44 83		N	Ford	8	Ford	H	H	** –5.83	Own	F4H	352	553	a	PX	108	9¼x2½x¾	C
60	CM504		134	158	17500	5900	7.00 22	8.00/22	Ford	8-3.62x3.3	2727		8260	167–4400	5-28 04		Y	Ford	8	Ford	H	H	** –6.80	Own	F4HV	352	553	a	PX	84½	9¼x2½x¾	L
61	M604		130	172	20000	5640	9.00 22	10.00 22	Ford	8-3.62x3.3	2727		8260	167–4400	5-28 04		Y	Ford	8	Ford	H	H	** –6.80	Own	F4HV	352	553	a	PX	108	9¼x2½x¾	L
62	CM604		134	158	20000	5850	9.00 22	10.00 22	Ford	8-3.62x3.3	2727		6.25	168–3800	5-28 04		Y	Ford	8	Ford	H	H	** –7.17	Own	F4HV	444	697	a	PX	84½	9x3x¼	L
63	M704		132	192	22000	7000	9.00 22	10.00 22	Ford	8-3.62x3.3	2727		6.25	168–3800	5-28 04		Y	Ford	8	Ford	H	H	** –7.17	Own	F4HV	444	697	a	PX	106	9x3x¼	L
64	CM704		134	158	22000	7600	9.00 22	10.00 22	Ford	8-3.62x3.7	3027		5.28	186–3800	5-34 63		Y	Ford	10	Ford	H	H	** –7.17	Own	F4HV	444	697	a	PX	84½	9x3x¼	L
65	M754		132	192	24000	7400	9.00 22	10.00 22	Ford	8-3.62x3.7	3027		5.28	186–3800	5-34 63		Y	Ford	10	Ford	H	H	** –7.17	Own	F4HV	444	697	a	PX	106	9x3x¼	L
66	CM754		132	156	24000	7600	9.00 22	10.00 22	Ford	8-3.83.66	3327		5.30	190–3800	5-34 63		Y	Ford	10	Ford	SB	H	** –7.17	Own	F4HV	485	729	a	PX	84½	9x3x¼	L
67	M804		132	192	26000	7600	10.00 22	11.00 22	Ford	8-3.83.66	3327		5.30	190–3800	5-34 63		Y	Ford	10	Ford	SB	H	** –7.17	Own	F4HV	485	729	a	PX	106	9x3x¼	L
68	CM804		132	156	26000	7900	10.00 22	11.00 22	Ford	8-3.83.66	3327		5.31	200–3800	5-34 63		Y	Ford	10	Ford	SB	H	** –7.17	Own	F4HV	542	829	a	PX	84½	9x3x¼	L
69	M904		132	192	29000	7800	11.00 22	11.00 24	Ford	8-3.83.66	3327		5.31	200–3800	5-34 63		Y	Ford	10	Ford	SB	H	** –7.17	Own	F4HV	542	829	a	PX	106	9x3x¼	L
70	CM904		132	156	29000	7900	11.00 22	11.00 24	Ford	8-3.83.66	3327		5.31	200–3800	5-34 63		Y	Ford	10	Ford	SB	H	** –7.17	Own	F4HV								

(Turn to Page 152, Please)

For Key to References and Abbreviations See Page 141



This new, low-pressure reducer

gets enamel out of dust FAST . . . puts more paint on the car . . . less up the stack!

Here's new, fast-acting help in getting cleaner, richer enamel jobs . . . brilliant, sure results with opalescents!

KEM "FLO-GLO" Reducer is specially designed to give new, fast, flash-off and out-of-dust time. At the same time, you get the flow-out and leveling needed for the finest quality jobs—plus other important advantages, too. That's because "FLO-GLO" uses LOWER spraying pressure (40-45 lbs. instead of 60-75) and GREATER reduction (50% instead of 25%).

Result: More paint on the car . . . less up the stack . . . *cleaner* jobs with outstanding gloss . . . better dispersion with opalescents . . . important time savings on *all* enamel jobs! Check your OK Automotive Jobber—try this new "star performer" today! The Sherwin-Williams Company, Automotive Division, Cleveland, Ohio.

SHERWIN-WILLIAMS

AUTOMOTIVE FINISHES



GET MORE FILM ON THE CAR, WITH LESS DUST!



NEW KEM® FLO-GLO REDUCER No. 183

Ask about all these 5 new star performers!

- ★ NEW OPEX® "SPEED-FILL"™ PRIMER-SURFACER
- ★ NEW KEM® RED OXIDE PRIMER
- ★ NEW KEM "FLO-GLO"™ REDUCER
- ★ NEW OPEX "POTENT"™ CONCENTRATE
- ★ NEW OPEX "SPOT-SOLV"™ LACQUER REMOVER

™Trade-Mark

(Continued from Page 150)

Line Number	MAKE AND MODEL	Chassis List Price	WHEEL-BASE Minimum Standard	WHEEL-BASE Maximum Standard	Gross Vehicle Weight for Normal Service	Chassis Weight (See definition)	TIRE SIZES D-dual rear S-single rear Standard Front and Rear	TIRE SIZES Maximum Authorized Tire Size (Duals unless noted)	ENGINE DETAILS Make and Model	No. of Cylinders, Bore and Stroke	Displacement	Comp. lb. ft.	Torque lb. ft.	Max. Brake H.P. at R.P.M. Given	Main Bearings Number	Main Bearings Diameter and Length	Governor Standard	TRANSMISSION Make and Model	TRANSMISSION Forward Speeds	REAR AXLE Make and Model	REAR AXLE Gear and Type	REAR AXLE Drive & Torque	REAR AXLE Gear Ratio Range in High	FRONT AXLE Make and Model	BRAKES SERVICE Make Location Type Operation	BRAKES SERVICE Lining Area	BRAKES SERVICE Drum Area	BRAKES SERVICE Drum Material	BRAKES Hand Location Type	C-A Dimensions (Min. Std. W. B.)	FRAME Side Rail Dimensions	FRAME Type
	Marmon-Herr.—Cont'd																																
1	MH-610		159	193	24000	9547	10.00 20D	11.00 20	Her WXLC3	6-4¼x4½	404	6	5312	139-2600	7-2⅝x3⅛	Y	MH610	10	MH610A	HyF	H	** -6 80	MH610	4HV	361	583	c	F	84	12¼x3x⅜	CTF
2	MH-615		159	193	26000	10158	10.00 20D	11.00 20	Her WXLC3	6-4¼x4½	404	6	5312	139-2600	7-2⅝x3⅛	Y	MH615	10	MH615A	2S	H	** -8 43	MH615	BW4A	459	767	c	F	84	12¼x3x⅜	CTF
3	MH-620		159	193	28000	10615	10.00 20D	11.00 20	Her RXLC	6-4⅛x5½	529	6	4408	146-2400	6-3½x3¼	Y	MH620	10	MH620A	2S	H	** -8 59	MH620	4HV	650	1056	c	F	84	12¼x3x⅜	CTF
4	MH-625		159	193	30000	11511	11.00 20D	12.00 20	Her RXLC	6-4⅛x5½	529	6	4408	146-2400	7-3½x3¼	Y	MH625	10	MH625	2SF	H	** -8 59	MH625	BW4A	650	1056	c	F	84	12¼x3x⅜	CTF
5	MH-630		159	193	33000	11711	11.00 20D	12.00 20	Her RXLDH	6-4⅛x5½	558	6	4440	180-2600	7-3½x3¼	Y	MH630	10	MH630	2SF	H	** -8 59	MH630	BW4A	650	1056	c	F	84	12¼x3x⅜	CTF
	NAPCO Power-Pak																																
6	(C) 3653		125		6000	3300	6.00/15	7.50/17	C-Thrift-Mas	6-3⅜x3½	236	7	5200	112-3700	4-	♦♦	N	Chev.	8	Chev.	HyF	H	** -4 57	Own	C4IHV	186	302	Co	21F	48¼	5½x2¼x⅜	C
7	(C) 4153		137		15700	4945	6.50 20D	7.50 20D	C-Load-Mas	6-3⅜x3½	236	7	5200	112-3700	4-	♦♦	N	Chev.	8	Chev.	HyF	H	** -6 17	Own	C21HV	350	579	ae	T1X	84	8½x2½x¾	C
8	(C) 4453		161		15700	5095	6.50 20D	7.50 20D	C-Load-Mas	6-3⅜x3½	236	7	5200	112-3700	4-	♦♦	N	Chev.	8	Chev.	HyF	H	** -6 17	Own	C21HV	350	579	ae	T1X	84	8½x2½x¾	C
9	(C) 6153		137		17700	5190	7.50 20D	8.25 20D	C-Job-Mas	6-3¼x3½	261	7	2220	135-4000	4-	♦♦	N	Chev.	8	Chev.	HyF	H	** -6 17	Own	C21HV	350	579	ae	T1X	84	8½x2½x¾	C
10	(C) 6453		161		17700	5315	7.50 20D	8.25 20D	C-Job-Mas	6-3¼x3½	261	7	2220	135-4000	4-	♦♦	N	Chev.	8	Chev.	HyF	H	** -6 17	Own	C21HV	350	579	ae	T1X	102	8½x2½x¾	C
11	(C) 6553		179		17700	5425	7.50 20D	8.25 20D	C-Job-Mas	6-3¼x3½	261	7	2220	135-4000	4-	♦♦	N	Chev.	8	Chev.	HyF	H	** -6 17	Own	C21HV	350	579	ae	T1X	84½	8½x2½x¾	C
12	(C) 5453		134		17700	5225	7.50 20D	8.25 20D	C-Job-Mas	6-3¼x3½	261	7	2220	135-4000	4-	♦♦	N	Chev.	8	Chev.	HyF	H	** -6 17	Own	C21HV	350	579	ae	T1X	108½	8½x2½x¾	C
13	(C) 5753		158		17700	5350	7.50 20D	8.25 20D	C-Job-Mas	6-3¼x3½	261	7	2220	135-4000	4-	♦♦	N	Chev.	8	Chev.	HyF	H	** -6 17	Own	C21HV	350	579	ae	T1X	84½	8½x2½x¾	C
14	Oshkosh W-214		150	205	22000	9025	9.00 20D	9.00/20	Con B6427	6-4⅞x4½	427		328	137-2600	7-2⅝x13½	Y	Own W-214	5	Own W-214	HF	H	** -6 2	Own W-214	T4IHDV	630	685	Co	TX	82	8¼x3x¾	TF
15	W-214-D		150	205	22000	9300	9.00 20	9.00/20	Con T6427	6-4⅞x4½	427		308	124-2400	7-2⅝x13½	Y	Own W-214	5	Own W-214	HF	H	** -6 2	Own W-214	T4IHDV	630	685	Co	TX	82	8¼x3x¾	TF
16	W-314		150	205	25000	▲ 9650	10.00 20D	10.00/20	Con B6427	6-4⅞x4½	427		328	137-2600	7-2⅝x13½	Y	Own W-314	5	Own W-314	HF	H	** -6 2	Own W-314	T4IHDV	537	825	Co	TX	82	8¼x3x¾	TF
17	W-314-D		150	205	25000	9700	10.00 20	10.00/20	Con T6427	6-4⅞x4½	427		308	124-2400	7-2⅝x13½	Y	Own W-314	5	Own W-314	HF	H	** -6 2	Own W-314	T4IHDV	537	825	Co	TX	82	8¼x3x¾	TF
18	W-414		150	205	28000	▲ 10150	10.00 20D	10.00/20	Con T6427	6-4⅞x4½	427		342	157-2600	7-2⅝x13½	Y	Own W-414	5	Own W414	HF	H	** -6 2	Own W414	T4IHDV	618	876		PX	82	8¼x3x¾	TF
19	W-1700		150	205	30000	▲ 11200	11.00 20D	12.00/20	Con R6513	6-4½x5½	513		427	190-2600	7-3¼x4½	Y	O. W1700-15	10	Own W1700-15	SF	H	** -7 15	Own W1700-15	T4IHDV	570	980	G	PX	92½	10½x3x¾	TF
20	W-1700-15-C		160‡		32000	12300	11.00 20D	12.00/20	Con R-6513	6-4½x5½	513		427	190-2600	7-3¼x4½	Y	O. W1700-15	10	Own W1700-15	SF	H	** -7 27	Own W1700-15	T4IHDV	570	980	G	PX	92½	10½x3x¾	TF
21	W-1700-15-CR		160‡		32000	12300	11.00 20D	12.00/20	Con R6513	6-4½x5½	513		427	190-2600	7-3¼x4½	Y	Own W-614	5	Own W-614	SF	H	** -7 1	Own W-614	T4IHDp	570	980	G	PX	82	10½x3x¾	TF
22	W-614		150	205	32000	12220	11.00 20D	12.00/20	Con R6513	6-4½x5½	513		427	190-2600	7-3¼x4½	Y	Own W-814	5	Own W-814	SF	H	** -7 1	Own W-814	41HDp	606	1024	G	PX	82	10½x3x¾	TF
23	W-814		150	205	36000	12660	11.00 20D	12.00/20	Con R6572	6-4¾x5½	572		464	218-2600	7-3¾x14½	Y	Own W-815	5	Own W-815	SF	H	** -7 1	Own W-815	41HDp	606	1024	G	PX	82	10½x3x¾	TF
24	W-815		150	205	36000	12660	11.00 20D	12.00/20	Con R6602	6-4¾x5½	602		484	218-2600	7-3¾x14½	Y	Own W-824	5	Own W-824	2F	H	** -7 2	Own W-824	L41HV	630	975	G	PX	82	10½x3x¾	TF
25	W-824		150	205	36000	12800	11.00 20D	12.00/20	Con R6572	6-4¾x5½	572		464	210-2600	7-3¾x14½	Y	Own W-825	5	Own W-825	2F	H	** -7 2	Own W-825	L41HV	630	975	G	PX	82	10½x3x¾	TF
26	W-825		150	205	36000	12800	11.00 20D	12.00/20	Con R6602	6-4¾x5½	602		484	218-2600	7-3¾x14½	Y	Own W-826	5	Own W-826	SF	H	** -7 2	Own W-826	41HDP	606	1024	G	PX	82	10½x3x¾	TF
27	W-816		150	205	36000	14100	12.00 20D	12.00/20	Cum HB600	6-4⅞x6	672		500	150-2000	7-4½x12	Y	Own W816	5	Own W816	SF	H	** -5 0	Own W816	L41HV	630	975	G	PX	90	10½x3x¾	TF
28	W-826		150	205	36000	14300	12.00 20D	12.00/20	Cum HB600	6-4⅞x6	672		500	150-2000	7-4½x12	Y	Own W826	5	Own W826	2F	H	** -5 0	Own W826	L41HV	630	975	G	PX	90	10½x3x¾	TF
29	W-817		158	205	36000	14400	12.00 20D	12.00/20	Cum HRF8600	6-5⅛x6	743		505	180-2000	7-4½x16	Y	Own W817	5	Own 817	SF	H	** -5 4	Own W817	41HDP	606	1024	G	PX	90	10½x3x¾	TF
30	W-827		158	205	36000	14600	12.00 20D	12.00/20	Cum HRF8600	6-5⅛x6	743		505	180-2000	7-4½x16	Y	Own W827	5	Own 827	2F	H	** -5 4	Own W827	L41HV	630	975	G	PX	90	10½x3x¾	TF
31	(D) WA-906		160	205	40000	▲ 16000	13.00 20D	14.00/208	Cum HRF8600	6-5⅛x6	743		505	180-2000	7-4½x16	Y	Own WA906	12	Own WA906	2F	H	** -6 15	Own WA906	LT4IA	645	1190	G	PX	90	10½x3½x¾	TF
32	W2211		160	205	42000	▲ 16500	13.00 20D	14.00/208	Wau 145GBK	6-5¼x6	779		590	240-2400	7-3½x17¾	Y	Own W2211	12	Own W2211	2F	H	** -6 15	Own W2211	LT4IA	780	1190	G	PX	90	10½x3½x¾	LF
33	W2206		160	205	54000	▲ 19000	13.00 24D	14.00/24	HS 1091G1	6-5¼x7	■		960	330-2000	7-3½x14⅞	Y	Own W2206	10	Own W2206	2F	H	** -6 3	Own W2206	LT4IA	780	1190	G	PX	90	10½x3½x¾	LF
34	(D) WA2208		160	205	42000	▲ 16900	13.00 20D	14.00/208	Cum NHB-600	6-5¼x6	743		535	200-2100	7-4½x16½	Y	Own WA2208	12	Own WA2208	2F	H	** -6 15	Own WA2208	LT4IA	645	1190	G	PX	90	10½x3½x¾	LF
35	(D) W2209		160	205	54000	▲ 19500	13.00 24D	14.00/24	Cum NHRS8600	6-5⅝x6	743		800	300-2100	7-4½x16½	Y	Own W2209	10	Own W2209	2F	H	** -6 30	Own W2209	LT4IA	780	1190	G	PX	90	10½x3½x¾	LF
36	Walter (e.f.) FZM		126	150	24000	9000	12.00/20	8	Wau MZA	6-4¼x4¾	404	5	6290	125-2600	7-2⅝x12½	Y	Own FJN	6	Own M8	2	H	** -8 00	Own FJ	O4IA	470	670	G	FI	84	12x3½x1½	B
37	(e.f.) AEB		126	150	34000	13000	12.00/24	8	Wau 140GZ	6-4⅜x5½	554	6	2440	165-2250	7-3¼x14	Y	Own FC	6	Own FCC	2	H	** -9 00	Own FC	O4IA	585	890	G	FI	108	14x3¾x1½	B
38	(e.f.) AGB		138	162	34000	14000	12.00/24	8	Wau 145GK	6-5¼x6	779	6	2585	215-2200	7-3½x17¾	Y	Own FA	6	Own FC	2	H	** -9 00	Own FC	O4IA	585	890	G	FI	108	14x3¾x1½	B
39	(e.f.) AGR		138	162	42000	15000	12.00/24	1D	Wau 145GK	6-5¼x6	779	6	2585	215-2000	7-3½x17¾	Y	Own FA	6	Own FCR	2	H	** -9 00	Own FC	O4IA	585	890	G	FI	108	14x3¾x1½	B
40	Ward La Fr. FD1				35000	▲ 11500	11.00/22	11.00/22	Cont 6513	6-4½x5¾	513	5	9405	180-2800	7-3¼x14½		Ful 5A620	5	Tim R462W	8	R	** -8 15	Tim F3100W	BW4IA	627	1029	Co	PM		10x3x⅜	C
41	(D) FD2				35000	▲ 12000	11.00/24	11.00/24	Cum HB600	6-5¼x6	672	17	500	150-1800	7-4½x16¾		Ful 5A920	5	Tim R462W	8	R	** -8 15	Tim F3100W	BW4IA	627	1029	Co	PM		10x3x⅜	C
42	Willys Jp. CJ-3B	*1503	80	80	3500	*2243	6.00 16S	9.00/13S	Own F4-134	4-3⅛x4⅜	134	6	914	72-4000	3-2.33x5	N	WG T90C	16	Spl 44-2	Hy	H	** -5 38	Spl 25	BW4IH	118	198	a	F		4x1¼x⅜	P
43	CJ-5	*1577	81	81	3750	*2274	6.00 16S	9.00/13S	Own F4-134	4-3⅛x4⅜	134	6	914	72-4000	3-2.33x5	N	WG T90C	16	Spl 44-2	Hy	H	** -5 38	Spl 25	BW4IH	118	198	a	F		4x1¼x⅜	P
44	F4-134-4WD	1946	118	118	6000	*3200	7.00 16S	9.00/13S	Own F4-134	4-3⅛x4⅜	134	6	914	72-4000	3-2.33x5	N	WG T90C	16	Spl 53	H	H	** -5 38	Spl 25	BW4IH	176	276	a	2I	42	28 5½x2x⅜	TD
45	66-226-4WD	*2046	118	118	6000	*3317	7.00 16S	9.00/13S	Own L6-226	6-3⅜x4⅜	226	5	990	115-3650	4-2½x4⅝	N	WG T90J	16	Spl 53	H	H	4 88	5-38	Spl 25	BW4IH	176	276	a	2I	42	28 5½x2x⅜	TD
46	CJ-6	*1731	101	101	3900	2336	6.00 16S	9.00/13S	Own F4-134	4-3⅛x4⅜	134	6	914	72-4000	3-2.33x5	N	WG T90C	16	Spl 44-2	Hy	H	** -5 38	Spl 25	BW4IH	118	198	a	F		4x1¼x⅜	P
47	DJ-3A	1120	80	80	2600	2015	6.40/15S	9.00/13S	Own L4-134	4-3⅛x4⅜	134	6	5105	60-4000	3-2 .33x5	4	N	WG T90C	3	Spl 23	H	½	** -4 56	Cla 130097	BW4IH	133	251	a	F		4x1¼x⅜	P
	Six-Wheelers Wheels Driven▼																																
48	Available *5608		Opt	Opt	40000	▲ 11750	10.00 20D	11.00/20	Wau 135GZ	6-4⅛x5	451	6	3350	155-2800	7-3¼x14	Y	Fu 5A62●	5	Tim 8LD	2F	R	** -7 00	Tim FD900	6IA	870	1451	a	FD	84	9½x3½x⅜	L
49	*6008		Opt	Opt	46000	▲ 12350	10.00 20D	11.00/24	Wau 140GK	6-4½x5½	525	6	4405	188-2800	7-3¾x13⅜	Y	Fu 5A65●	5	Tim SQD	2F	R	** -7 54	Tim FE900	6IA	998	1659	a	FD	84	9½x3½x⅜	L
50	*6108		Opt	Opt	60000	▲ 14700	11.00 20D	12.00/24	Wau 145GK	6-5¼x6	779	6	2585	215-2000	7-3½x17¾	Y	Spi 8051A●	5	Tim SW456	2F	R	** -7 60	Tim FE900	6IA	1118	1867	a	FD	84	9½x3½x⅜	L
51	(D) *6308D		Opt	Opt	60000	▲ 16250	11.00 20D	12.00/24	Cum NHB	6-5⅛x6	743	17	535	200-2100	7-4½x16½	Y	Spi 8051A●	5	Tim SFD4600	2F	R	** -8 07	Tim 27460	6IA	1160	1886	a	FD	84	9½x3½x⅜	L
52	Dodge C-3-KX8		141	189	31000	7925	8.22.5D	9.22.5	Own VT-462	8-3½x3⅝	331	7	5311	201-3900	5-2½x5.09	Y	NP 540	5	Tim 8DHU	8FH	L6	8-7 8	Own VT-462	O6IHV	612	855	Ce	TX		½x2⅜x9½	CP
53	C-3-TX8		144	192	36000	8700	9.22.5D	10.22.5	Own VT-466	8-3½x3⅝	331	7	5333	212-3900	5-2½x5.09	Y	Cla 265V	5	Tim 8FHD	8FH	L6	8-7 8	Tim FD-900	O6IHV	684	955	Ce	TX		½x3½x10½	CP
54	C-3-YX8		144	192	46000	10325	10.22.5D	12.22.5	Own VT-468	8-3½x3⅝	354	7	2354	220-3900	5-2½-5.09	Y	Cla 290	5	Tim 8LHD	8FH	L7	8-8 6	Tim FD-900	O6IHV	880	1288	e	TX		10½x3½x5⅝	CP
55	Dupiex TH6		162	220	30000	9180	8.25/20	9.00/20	Her JXD	6-4x4½			3206	2240	113-3000	7-2½x10½	Y	Fu 5B33‡	5	Tim SBD1055	BF	L	** -6 16	Tim FC900	L6IHV	513	839	a	TX	83½	9½x3½x⅜	L
56	RH-6		160	208	40000	11500	10.00/20	11.00/20	Her WXLC3	6-4¼x4¾	404	5	8312	139-2600	7-2⅝x13¼	Y	Fu 5A43	5	Tim SD3010	2F	R	8 27-	Tim FD900	BW61A	1075	1525	a	TX	73½	10¼x3½x⅜	L
57	(D) L6		172	208	45000	15000	11.00/20	12.00/20	Cum HB600	6-4⅞x6	672	17	495	150-1800	7-4½x16½	Y	Fu 5A920	5	Tim SD454	SF2	L	6 8-8 15	Tim FE900	BW61A	1137	1625	a	TX	77½	10½x3½x⅜	L
58	Fabco (c) FD201A		130	Opt	30000	10500	8.25/20	9.00/20	Chevrolet	6-3⅛x3½	261	7	2220	135-4000	4-	♦♦	N	Chevrolet•	8	Chevrolet	HyF	H	** -6 17	Own RC	O4IH	615	950	Co	TX	60	9½	P
59	(c) FD201B		130	Opt	30000	10500	8.25/20	9.00/20	Ford	8-3⅝x3	239	7	5215	132-4000	5-2½x3½	Y	Ford•	10	Ford	HF	H	** -6 8	Own RF	O4IHV	600	908		TX	61	9¼	P
60	(c) FD201D		130	Opt	30000	10500	8.25/20	9.00/20	Ford	8-3⅝x3	256	7	5228	140-3000	5-2½x3½	Y	Ford•	10	Ford	HF	H	** -6 8	Own RF	O4IHV	600	900		TX	61	9¼	P
61	(c) FD251B		130	Opt	40000	13000	8.25/20	9.00/20	Ford	8-3⅝x3	317	7	2286	170-3900	5-2½x4⅜	Y	Ford•	10	Ford	HF	H	7 17-7 67	Own RF	O4IHV-A	740	1200		TX	61	9	
62	FWD 6-222		154	Opt	22000	10530	7.50 20D	9.00/20	Int BD308	6-3⅛x4½	308	6	5273	150-3600	4-2 7x4½	Y	Int F51C	10	Own 6-13C	SF	T	** -6 17	Own 12B	Wg61HV	620	930	a	T6	84	9x3x⅛	TTH
63	6-282		154	Opt	28000	10650	8.25/20D	9.00/20	Int BD308	6-3⅛x4½	308	6	5273	150-3600	4-2 7x4½	Y	Int F51C	10	Own 6-13C	SF	T	** -6 17	Own 12B	Wg61HA	620	930	a	T6	84	9x3x⅛	TTH
64	6-324		154	Opt	32000	12215	8.25/20D	10.00/20	Int RD372	6-4⅝x4½	372	6	5309	165-3200	7-3¼x10½	Y	Ful 5A620	10	Own 6-23	SF	T	4 7-11 5	Own 22	Wg61HA	673	990	a	T6	84	9x3x⅛	TTH
65	6-325		154	Opt	32000	12215	8.25/20D	10.00/20	Int RD406	6-4¼x4½	406	6	5338	175-3200	7-3¼x10½	Y	Ful 5A620	10	Own 6-23	SF	T	4 7-11 5	Own 22	Wg61HA	673	990	a	T6	84	9¼x3x⅜	TTH
66	6-366		154	Opt	36000	12400	9.00 20D	10.00/20	Int RD450	6-4⅝x5	450	6	2387	182-3000	7-3¼x10½	Y	Ful 5C650	10	Own 6-23	SF	T	4 7-11 5	Own 22	Wg61HA	673	990	a	T6	84	9¼x3x⅜	TTH
67	6-364D		154	Opt	36000	13180	9.00 20D	10.00/20	GMC 4-71	4-4¼x5	284	16	380	150-2100	5-3½x5⅝	Y	Ful 5C65	10	Own 6-23	SF	T	4 7-11 5	Own 22	Wg61HA	673	990	a	T6	84	9¼x3x⅜	TTH

(Turn to Page 154, Please)

For Key to References and Abbreviations See Page 141



"Up to 275,000 miles before overhaul with Cities Service C-300 Motor Oil!"

"In 35 years in the bus business, we've never seen the match of Cities Service C-300 Motor Oil," says President Rudolph Weber of Berea Bus Lines.

"With its high detergency, C-300 has enabled our 29 buses to roll up around 250,000 miles per unit before overhaul—and a couple even hit 275,000 miles!

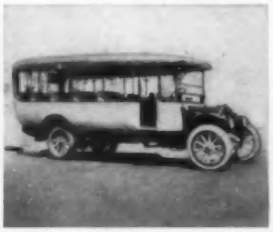
"Moreover, we've received equally outstanding results with our other Cities Service Products, too—clean-burning gasolene, Trojan A Grease for wheel bearings, and Trojan MP Gear Oil.

"Our buses steer easily even on the coldest winter days . . . and as for loss of bearings, that's just unheard of with Trojan A Grease. Needless to say, I'd recommend Cities Service to any fleet operator."

Berea is one of an increasing number of bus lines that have found Cities Service gasolene and lubricants best suited to their operation. Have your local Cities Service representative demonstrate how he can help serve your fleet; or write: Cities Service Oil Company, Sixty Wall Tower, New York 5, N. Y.



"Patience is Paramount when you carry 1400 kids to school every day," says Rudolph Weber. "Also paramount is safe performance—and in this, Cities Service lubricants play a big role."



First Berea Bus was this old model, used when firm started in business 35 years ago. Berea now has 29 buses, divides its business between school, commercial, and charter.



80,000 Riders Each Month—on Berea Buses to Cleveland. "Cities Service and good service go hand in hand," says a man with 35 years in the bus business—Rudolph Weber.

CITIES SERVICE

QUALITY PETROLEUM PRODUCTS

(Continued from Page 152)

Line Number	MAKE AND MODEL	Chassis List Price	WHEEL-BASE Minimum Standard	WHEEL-BASE Maximum Standard	Gross Vehicle Weight for Normal Service	Chassis Weight (See definition)	TIRE SIZES D-dual rear S-single rear Standard Front and Rear	TIRE SIZES Maximum Authorized Tire Size (Dual unless noted)	ENGINE DETAILS Make and Model	No. of Cylinders, Bore and Stroke	Displacement	Comp. Ratio	Torque lb. ft.	Max. Brake H.P. at R.P.M. Given	Main Bearings Number and Diameter and Length	Governor Standard	TRANS-MISSION Make and Model	Forward Speeds	REAR AXLE Make and Model	Gear and Type	Drive & Torque	Gear Ratio Range in High	FRONT AXLE Make and Model	BRAKES SERVICE Make (Location Type Operation	Lining Area	Drum Area	Drum Material	Hand Location Type	C-A Dimensions (Min. Std. W. B.)	FRAME Side Rail Dimensions	Type
	FWD—cont'd																														
1	6-368D		188	Opt	36000	14030	9.00 20D	10.00/20	Cum HRBB	6-5½x6	743	16	505	180–2000	7-4½x16½	Y	Ful 5C72	10	Own 6-23	SF	T 4.7-11.5	Own 22		Wg6IHA	673	990 a	T6	96	9¼x3x⅝	TfH
2	6-407		154	Opt	40000	12700	10.00/20D	10.00/20	Int RD501	6-4½x5¼	5016	5	444	212–3000	7-3¼x10½	Y	Ful 5A1120	10	Own 6-23	SF	T 4.7-11.5	Own 22		Wg6IHA	673	990 a	T6	96	9¼x3x⅝	TfH
3	6-406D		188	Opt	40000	14330	10.00/20D	10.00/20	GMC 6-71	6-4¼x5	426	16	570	227–2250	7-3½x7½	Y	Ful 5C72	10	Own 6-23	SF	T 4.7-11.5	Own 22		Wg6IHA	673	990 a	T6	96	9¼x3x⅝	TfH
4	6-409D		188	Opt	40000	14360	10.00/20D	10.00/20	Cum NHB	6-5½x6	743	16	535	200–2100	7-4½x16½	Y	Ful 5C72	20	Own 6-23	SF	T 4.7-11.5	Own 22		Wg6IA	673	990 a	T6	155	9¼x3x⅝	TfH
5	6-409D		225	Opt	40000	15650	10.00/20D	10.00/20	GMC 4-71	4-4¼x5	284	16	380	150–2100	5-3½x5½	Y	Ful R96	20	Own 6-23	SF	T 4.7-11.5	Own 22		Wg6IA	673	990 a	T6	159	9¼x3x⅝	TfH
6	R6-404D		229	Opt	40000	16200	10.00/20D	10.00/20	GMC 6-71	6-4¼x5	426	16	570	227–2250	7-3½x7½	Y	Ful R96	20	Own 6-23	SF	T 4.7-11.5	Own 22		T6IA	1234	1885 a	T6	96	10x3x½	CfH
7	R6-406D		229	Opt	40000	16200	10.00/20D	10.00/20	Cum NHB	6-5½x6	7796	2	595	240–2400	7-3½x17½	Y	Ful 10A1120	10	Own 6-33	SF	T 5.7-8.53	Own 32		T6IA	1234	1885 a	T6	96	10x3x½	CfH
8	6-609		188	Opt	60000	17510	12.00/20D	13.00/20D	Wau 145GKB	6-4¾x5	426	16	570	227–2250	7-3½x7½	Y	Ful 10A1120	10	Own 6-33	SF	T 5.7-8.53	Own 32		T6IA	1234	1885 a	T6	96	10x3x½	CfH
9	6-606D		188	Opt	60000	18010	12.00/20D	13.00/20D	GMC 6-71	6-4¼x5	426	16	570	227–2250	7-3½x7½	Y	Ful 10A1120	10	Own 6-33	SF	T 5.7-8.53	Own 32		T6IA	1234	1885 a	T6	96	10x3x½	CfH
10	6-609D		188	Opt	60000	18180	12.00/20D	13.00/20D	Cum NHB	6-5½x6	743	16	535	200–2100	7-4½x13½	Y	Ful R46	8	Own 23	SF	H 4.86–10.5	Own 22		T41HA	419	706 a	T4	75	9x3x¼	TfH
11	T47		142		28000	9445	10.00/20D		Int RD501	6-4¼x5¼	5016	5	444	212–3000	7-3¼x10½	Y	Ful R46	8	Own 23	SF	H 4.86–10.5	Own 22		T41HA	419	706 a	T4	75	9x3x¼	TfH
12	T44D		142		28000	10245	10.00/20D		GMC 4-71	4-4¼x5	284	16	380	150–2100	5-3½x5½	Y	Ful R46	8	Own 23	SF	H 4.86–10.5	Own 22		T41HA	419	706 a	T4	75	9x3x¼	TfH
13	T45D		142		28000	10245	10.00/20D		Cum JT6B	4-4½x5	284	16	405	175–2500	7-3½x7 8	Y	Ful R46	8	Own 23	SF	H 4.86–10.5	Own 22		T41HA	419	706 a	T4	75	9x3x¼	TfH
14	T714D		142		28000	10445	10.00/20D		Dutz F8L614	8-4½x5½	649	17	448	170–2300	5–	Y	Ful 5C65	5	Own 23	SF	H 4.86–10.5	Own 22		T61HA	673	1130 a	T4	93	9x3x¼	TfH
15	T647		160		40000	11275	10.00/20D		Int RD501	6-4½x5½	5016	5	444	212–3000	7-3¼x10½	Y	Ful R46	8	Own 23PT▲	SF	T 4.86–10.5	Own 22		T61HA	673	1130 a	T4	93	9x3x¼	TfH
16	T644D		160		40000	12075	10.00/20D		GMC 4-71	4-4¼x5	284	16	380	150–2100	5-3½x5½	Y	Ful R46	8	Own 23PT▲	SF	T 4.86–10.5	Own 22		T61HA	673	1130 a	T4	93	9x3x¼	TfH
17	T645D		160		40000	12075	10.00/20D		Cum JT6B	6-4⅝x5½	401	16	405	175–2500	7-3½x7 8	Y	Ful 5665	5	Own 23PT▲	SF	T 4.86–10.5	Own 22		T61HA	673	1130 a	T4	96	9x3x¼	TfH
18	T644D		160		40000	12275	10.00/20D		Dutz F8L614	8-4½x5½	649	17	448	170–2300	5–	Y	Ful R46	8	Own 23PT▲	SF	T 4.86–10.5	Own 22		T61HA	673	1130 a	T4	96	9x3x¼	TfH
19	T647D		124		40000	12275	10.00/20D		Int RD501	6-4½x5½	5016	5	444	212–3000	7-3¼x10½	Y	Ful R46	8	Own 23PT▲	SF	T 4.86–10.5	Own 22		T61HA	673	1130 a	T4	96	9x3x¼	TfH
20	T644D		124		40000	12075	10.00/20D		Cum JT6F	6-4⅝x5½	401	16	405	175–2500	7-3½x7 8	Y	Ful R46	8	Own 23PT▲	SF	T 4.86–10.5	Own 22		T61HA	673	1130 a	T4	96	9x3x¼	TfH
21	Kenworth (D) 4522		191	255	43000	14100	10.00 20	11.00 22	Cum NHB600	6-5½x6	743	16	535	200–2100	7-4½x13½	Y	BL 8241	12	T R200P◆◆	2F	H 5.91–9.76	Tim FE900N		BW4IA	880	1368 a	TD	100	9¼x3¼x⅞	C
22	(D) ◆523-4R		190	255	43000	15200	10.00 20	11.00 22	Cum NHB600	6-5½x6	743	16	535	200–2100	7-4½x13½	Y	BL 8241	12	Tlm SQW	WF	L 5.67–8.20	Tim FE900N		BW4r1A	956	1544 a	TD	99	9¼x3¼x⅞	C
23	(D) ◆524-4R		190	255	61000	16400	10.00 20	12.00 24	Cum NHB600	6-5½x6	743	16	535	200–2100	7-4½x13½	Y	BL 8241	12	Tlm SW456F	WF	L 4.72–8.20	Tim FE900N		BW4r1A	956	1556 a	TD	99	9¼x3¼x⅞	C
24	(D) 548-4R		201		67000	20150	12.00 24	12.00 24	Cum NHB600	6-5½x6	743	16	535	200–2100	7-4½x13½	Y	BL 8241	12	Tlm 8FD-4600	B2F	L 5.07–11.6	Tim 27462N		BW6r1A	956	1556 a	TD	112¼	9¼x3¼x⅞	DB
25	(D) 552-6		178		54000	22500	13.00 24	13.00 24	Cum NHB600	6-5½x6	743	16	535	200–2100	7-4½x13½	Y	BL 8241	12	8FD-4600	B2F	L 5.07–11.6	Tim 27462N		BW6r1A	1120	1962 a	TD	112	9¼x3¼x⅞	DB
26	(D) *803		168		140000	68000		18.00 33	Cu NVH 1200	12-5½x6	1483	13	1084	400–2100	7-4½x13½	Y	BL 8241	12	Tl GSWQFR2	WF	L 5.67–8.20	Tim FE900N		BW4r1A	956	1544 a	TD	93	9¼x3¼x⅞	C
27	(D) ◆825-4R		190	255	43000	14400	10.00 20	11.00 22	Cum NHB600	6-5½x6	743	16	535	200–2100	7-4½x13½	Y	Fu 5C720	15	Tlm SQD	B2F	L 4.68–9.21	Tim FE900N		BW4r1A	956	1544 a	TD	118¾	Variable	C
28	(D) ◆829-4R	175‡	255		43000	14200	10.00 20	11.00 22	Hs 590SV3	6-5x7	5906	6	490	232–2800	7-3¼x12	Y	BL 8241▲	12	Tlm 8FD4600	B2F	L 5.07–11.6	Tim 27462N		BW6r1A	956	1556 a	TD	118¾	Variable	C
29	(D) 848-4R	210‡	234‡		98000	20700	12.00 24	14.00 24	Cum NHB600	6-5½x6	743	16	535	200–2100	7-4½x13½	Y	BL 8241▲	12	Tlm 8FD4600	B2F	L 5.07–11.6	Tim 27436W		BW6r1A	956	1556 a	TD	118¾	Variable	C
30	(D) 849-4R	210‡	234‡		98000	21700	12.00 24	14.00 24	Cum NHB600	6-5½x6	743	16	535	200–2100	7-4½x13½	Y	BL 8241▲	12	Tlm 8FD4600	B2F	L 5.07–11.6	Tim 27436W		BW6r1A	1244	2072 a	TD	118¾	Variable	C
31	(D) *850-4R	210‡	234‡		98000	21900	12.00 24	14.00 24	Cum NHB600	6-5½x6	743	16	535	200–2100	7-4½x13½	Y	BL 8241▲	12	Tlm 8FD4600	B2F	L 5.07–11.6	Tim 27436W		BW6r1A	1244	2072 a	TD	118¾	Variable	C
	Oshkosh																														
32	W-825-6X6		178	Opt	45000	12500	11.00/20	11.00/20	Cum R6602	6-4⅞x5½	602		484	218–2600	9-3¼x14½	Y	Own W-825	5	Tlm 8FD3020	2F	L ** –7.2	Own W-825		LT6IA	1156	1889	G	PX	110	10½x3½x⅝	B
33	W-826-6X6		178	Opt	45000	19000	11.00/20	11.00/20	Cum H8600	6-4⅞x6	672		500	150–2000	7-4½x12	Y	Own W-826	5	Tlm 8FD-3020	2F	L ** –5.6	Own W-826		LT6IA	1156	1889	G	PX	110	10½x3½x⅝	B
34	°°W1602		Opt	Opt	95000		14.00/24D	14.00/24	Optional								Optional		Tlm 8D472	2F	L	Own WA-1602		LT6IA		2217		Opt	Opt	12½x3½x⅝	B
35	°°WA1600		Opt	Opt	60000		11.00/24D	12.00/24	Optional								Optional		Tlm 8FD4600	2F	L	Own WA-1600		LT6IA	1156	1189		Opt	Opt	12½x3½x⅝	B
36	Peterbilt (D) 350		193	Opt	36000		10.00/20D	11.00/22	Cum NHB600	6-5½x6	743	17	500	200–2100	7-4½x16½	Y	Spi 8041	12	Tlm SW-3456	WF	R 6.16–6.80	Tim FE900DPA		BW6IA	1125	1569		TD	99½	10⅝x3½x⅞	CT
37	(D) 360		198	Opt	36000		10.00/20D	11.00/22	Cum NHB600	6-5½x6	743	17	500	200–2100	7-4½x16½	Y	Spi 8041	12	Tlm SW-459	WF	R 6.16–6.80	Tim FE3900DPA		BW6IA	1005	1517		TD	104⅛	10⅝x3½x⅞	CT
38	(D) 381		194	Opt	44000		10.00/20D	11.00/22	Cum NHB600	6-5½x6	743	17	500	200–2100	7-4½x16½	Y	Spi 8041	12	Tlm 8FD4600	2F	R **–10.16	T 27463		BW6IA	1084	1626		TD	98½	10⅝x3½x⅞	CT
39	(D) 350(coe)		135	Opt	36000		10.00/20	11.00/22	Cum NHB600	6-5½x6	743	17	500	200–2100	7-4½x16½	Y	Spi 8045	12	Tlm SW3458	WF	R 6.16–7.35	Tim FE900N		BW6IA	1005	1517		TD	93	10¼x3½x⅞	CT
40	(D) 351		190	Opt	36000	13200	10.00/20	11.00/22	Cum NHB600	6-5½x6	743	17	500	200–2100	7-4½x16½	Y	Spi 8041	12	Sw 459	WF	R 6.16–6.80	Tim Fe900DPA		BW6IA							
41	(D) 360(coe)		135	Opt	36000		10.00/20	11.00/22																							
42	Reo F-226		150	203	42000	▲10880	10.22.5	11.22.5	Own 331▲	6-3⅝x4½	331	6	4.264	140–3200	7-2½x9.408	Y	Cla 205V	5	Tlm SLD	F2	T 7.67–9.33	Tim FD900		T6IVH	938	1394	var	TD	85⅝	9x3x¼	CC▲
43	F-506		150	203	42000	▲11075	10.22.5	11.22.5	Own 160■	6-4¼x4¼	331	6	290	160–3200	7-2¾x9⅞	Y	Cla 290V	5	Tlm SLD	F2	T 7.67–9.33	Tim FD-900		T6IVH	938	1394	var	TD	85⅝	9x3x¼	CC▲
44	F-536		155	200	48000	▲12115	11.22.5	12.24.5	Own 160	6-4¼x4¼	427	6	348	160–2800	7-2¾x9⅞	Y	Cla 290V	5	Tlm SQD	F2	T 7.54–9.21	Tim FE-900		TWs61A	838	1362	var	TD	85⅝	9x3x¼	CC▲
45	F-506M		150	203	47000	▲11210	10.22.5	11.22.5 †	Own 160	6-4¼x4¼	331	6	290	160–3200	7-2¾x9⅞	Y	Cla 290V	5	Tlm SLD	F2	T ** –9.33	Tim 27461		TWs61A	908	1470	var	TD	85⅝	9x3x¼	CC▲
46	F-226 (6x6)		150	203	42000	▲11960	10.22.5	11.22.5	Own 331▲‡	6-3⅝x4¼	331	6	4.264	140–3200	7-2½x9.408	Y	Cla 205V	5	Tlm SQD	HF2	T ** –9.21	Tim 27461		TWs61A	958	1808	var	TD	90⅝	9x3x¼	CC▲
47	F-536-M		155	200	52000	▲12635	12.22.5●	12.24.5	Own 160■	6-4¼x4¼	331	6	290	160–3200	7-2¾x9⅞	Y	Cla 265V	5	Tlm SQTT 235	HFd	H 6.43–6.91	Tim FD900		TWs61A	862	1394	var	TX	75⅝	9x3x¼	CC▲
48	F-50 (6X2)		140	185	40000	▲10755	10.22.5	11.22.5	Own 160■	6-4¼x4¼	331	6	290	160–3200	7-2¾x9⅞	Y	Cla 265V	5	Tlm SQTT335	HFd	H 6.63–8.51	Tim FD900		TWs61A	862	1394	var	TD	72	9x3x¼	CC▲
49	F-50T (6X2)		140	140	40000	▲11255	10.22.5	11.22.5	Own 160■	6-4¼x4¼	331	6	290	160–3200	7-2¾x9⅞	Y	Spi 6352	5	Tlm SQTT235◆	HF2	H 6.43–6.91	Tim FD-900		TWs61A	862	1394	var	TD	66	9x3x¼	CC▲
50	A-620		139	199	40000	▲11355	10.22.5	11.22.5	Own OV195▼	8-3⅝x4¼	3907		334.5	195–3200	5-3x5 7	Y	Spi 6352	5	Tlm SQTT335	HFd	H 6.63–8.51	Tim FD-900		TWs61A	862	1394	var	TD	84	9x3x¼	CC▲
51	A-623		133	151	40000	▲11960	10.22.5	11.22.5	Own OV195▼	8-3⅝x4¼	3907		334.5	195–3200	5-3x5 7	Y	Spi 6352	5	Tlm SLD	F2	T 7.67–9.33	Tim FD-900		TWs61A	862	1394	var	TD	90	9x3x¼	CC▲
52	A-630		151	199	42000	▲11970	10.22.5	11.22.5	Own OV195▼	8-3⅝x4¼	3907		334.5	195–3200	5-3x5 7	Y	Spi 6352	5	Tlm SLDD	F2	T 7.67–9.33	Tim FD-900		TWs61A	862	1808	var	TD	90	9x3x¼	CC▲
53	A-633		157	187	42000	▲13105	10.22.5	11.22.5	Own OV195▼	8-3⅝x4¼	3907		334.5	195–3200	5-3x5 7	Y	Spi 6352	5	Tlm SQD	F2	T 6.41–8.43	Tim FE-900		TWs61A	982	1808	var	TD	90	9x3x¼	CC▲
54	A-730		151	199	48000	▲12635	11.22.5	12.24.5	Own OV195▼	8-3⅝x4¼	3907		334.5	195–3200	5-3x5 7	Y	Spi 6352	5	Tlm SQDD	F2	T 7.54–9.21	Tim FD-900		TWs61A	862	1808	var	TD	85⅝	9x3x¼	
55	A-733		157	187	48000	▲13840	11.22.5	12.24.5	Own 3310A	6-3⅝x4¼	331	6	4.264	140–3200	7-2–x9.408	Y	Cla 205V	5	Tlm SQHD	H	T 6.2–7.8	Tim FC900		LT61VH	573		var	TD	85⅝	9x3x¼	CC▲
56	F-206		150	185	28000	▲89408	9.22.5	9.22.5	Own 3310A	6-3⅝x4¼	331	6	4.264	140–3200	7-2–x9.408	Y	Cla 205V	5	Tlm SFHD	H	T 6.2–7.8	Tim FD900		TWs61A	830		var	TD	85⅝	9x3x¼	CC▲
57	F-216		150	185	35000	▲97209	9.22.5	10.22.5	Own OV195	8-3⅝x4¼	3907		334.5	195–3200	5-3x5 7	Y	Spi 6352	5	Tlm SLDD	HF2	T 6.41–9.21	Tim FD900		TWs61A	862	1394	var	TD	114	9x3x¼	CC▲
58	AC633		148	172	42000	▲12940	11.22.5	12.24.5	Own OV195	8-3⅝x4¼	3907		334.5	195–3200	5-3x5 7	Y	Spi 6352	5	Tlm SQDD	HF2	T 6.44–9.21	Tim FB900		TWs61A	982	1808	var	TD	84	9¼x3¼x⅞	CC▲
59	AC733		148	172	48000	▲13200	11.22.5	12.24.5	Own OV195	8-3⅝x4¼	3907		334.5	195–3200	5-3x5 7	Y	Spi 6352	5	Tlm SFD4600	HF2	T 1016–1156	Tim 27461		TWs61A	672	1083	var	TD	66	9¼x3¼x⅞	C
60	A-830-OH		151	199	63000	▲16245	11.00/24	12.00/24	Own OV220	8-4¼x4¼	4407		340	5.225–3200	5-3x5.7	Y	Spi 6352	5	Tlm QT340	HFd	H 5.62–7.69	Tim FD900		TWs41A	672	1083	var	TD	66	9¼x3¼x⅞	C
61	A-603D		133	151	28000	▲9955	11.22.5	12.24.5	Cum JT-6-B	6-4½x5	401	16	412	175–2500	7-3½x7 8	Y	Spi 6352	5	Tlm RT340	HFd	H 5.54–7.42	Tim FD900		TWs61A	862	1394	var	TD	96	9x3x¼	CC▲
62	A-703D		133	151	30000	▲10215	11.22.5	12.24.5	Cum JT-6-B	6-4½x5	401	16	412	175–2500	7-3½x7 8	Y	Spi 6352	5	Tlm SLDD	HF2	T 5.09–7.0	Tim FD900								
63	A-633D		163	187	42000	▲13645	10.22.5	11.22.5	Cum JT-6-B	6-4½x5	401	16	412	175–2500	7-3½x7 8	Y	Spi 6352													
	Truckstell																														
64	(C) F600 4R		152	221	28000	7960▲	7.50/20	8.25/20	Ford	8-3 1x3¼	239	6	8.194	106–3500	3-2¼x12 7		Ford ◆◆	12	Ford	HF	R ** –6.8	Ford		F61HV	612	836	Co	TX	82	9½x3x⅛	C▼
65	(C) F700 4R		153	225	32000	8980▲	7.50/20	9.00/20	Ford	6-3½x4 4	254	6	8.212	112–3500	4-2¼x13 8		Ford ◆◆	12	Ford	HF	R ** –7.2	Ford		F61HV	755	1169	Co	TX	82	9½x3x⅛	C▼
66	(C) F750 4R		153	225	34000	9350▲	8.25/20	9.00/20	Ford	8-3½x3¼	279	7	1244	145–3800	5-2½x15		Ford ◆◆	12	Ford	HF	R ** –7.2	Ford		F61HV	755	1169	Co	TX	82	9½x3x⅛	65
67	(C) F800 4R		153	225	40000	10170▲	9.00/20	10.00/20	Ford	8-3 8x3½	317	7	1284	155–3900	5-2½x15		Ford ◆◆	15	Ford	SF	R ** –7.17	Ford		†	856	1231	Co	TX	82	9½x3x⅛	65
68	(C) F900 4R		153	225	48000	11640▲	10.00/20	11.00/20	Ford	8-3 8x3½	317	7	1284	155–3900	5-2½x15		Ford ◆◆	15	Ford	SF	R ** –7.17	Ford		†	950	1370	Co	TX	82	9½x3x⅛	65
69	(C) C5403 4R		126	204	28000	7800▲	7.50/20	9.00/20	Chev.	6-3⅞x3½	235	7	1,200	108–3500	4–8t. Chev.		Chev. ◆◆	12	Chev.	HF	R ** –6.17	Chev.		C61HV	607	930	Co	TfX	83	9½x3x½	C▼
70	(C) C6103 4R		160	229	30000	7650▲	7.50/20	9.00/20-10	Chev.	6-3⅞x3½	235	7						12	Chev.	HyF	R ** –6.17	Chev.		C61HV	607	930	Co	TfX	83	9½x3x½	C▼

(Turn to Page 156, Please)

For Key to References and Abbreviations See Page 141



Nationally advertised in the April 14th issue of THE SATURDAY EVENING POST

Put your fleet in shape for Spring with these quality MoPar products!

You can be sure of top performance from your cars and trucks when you service them with MoPar products. They are available at special fleet rates from your nearby Plymouth, Dodge, De Soto, Chrysler dealer or MoPar Parts Wholesaler.

(Continued from Page 154)

Line Number	MAKE AND MODEL	Chassis List Price	WHEEL-BASE Minimum Standard	WHEEL-BASE Maximum Standard	Gross Vehicle Weight for Normal Service	Chassis Weight (See definition)	TIRE SIZES D-dual rear S-single rear Standard Front and Rear	TIRE SIZES D-dual rear S-single rear Maximum Authorized Tire Size (Duals unless noted)	ENGINE DETAILS Make and Model	No. of Cylinders, Bore and Stroke	Displacement	Comp. Ratio	Torque lb. ft.	Max. Brake H.P. at R.P.M. Given	Main Bearings Number Diameter and Length	Governor Standard	TRANSMISSION Make and Model	TRANSMISSION Forward Speeds	REAR AXLE Make and Model	REAR AXLE Gear and Type	REAR AXLE Drive & Torque	REAR AXLE Gear Ratio Range in High	FRONT AXLE Make and Model	BRAKES SERVICE Make Location Type Operation	BRAKES SERVICE Lining Area	BRAKES SERVICE Drum Area	BRAKES SERVICE Drum Material	BRAKES Hand Location Type	C-A Dimensions (Min. Std. W. B.)	FRAME Side Rail Dimensions	FRAME Type
1	Ward La Fr. DTF44		180	220	30500		10.00 20	11.00 20	Con T6427	6-4⅛x4⅛	427		340	152-2600			Fu 5A434		15 Tim SD30010P	2 Sp	WF	H	**	-8.27	Tim FD900	CuF1A	9661450a	TTD	134	10½x3⅛x¼	DL
2	DTF44		180	220	30500		10.00 20	11.00 20	Con R6572	6-4⅛x5	572		440	198-2600			Fu 5C634		15 Tim SD30010P	2 Sp	WF	H	**	-7.50	Tim FD900	CuF1A	9661450a	TTD	134	10½x3⅛x¼	DL
3	D3ST44		180	220	42000		11.00 20	11.00 20*	Cum H8B600	6-5½x6	672		465	206-2600			Fu 5C724		15 Tim SD30010P	2 Sp	WF	H	**	-6.84	Tim FE900	CuF1A	9661450a	TTD	78	8⅛x3⅛x¼	D
(D)	D3RT44		180	220	42000		11.00 20	11.00 20	Cum H8B600	6-5½x6	743		540	165-1800			Fu 5C724		15 Tim SD30010P	2 Sp	WF	H	**	-6.84	Tim FE900	CuF1A	9661450a	TTD	109	8⅛x3⅛x¼	D
(D)	D3ST44		180	220	42000		11.00 20	11.00 20	Cum N8B600	6-5½x6	743		540	200-2100			Fu 5C724		15 Tim SD30010P	2 Sp	WF	H	**	-6.84	Tim FE900	CuF1A	9661450a	TTD	85	8⅛x3⅛x¼	D
4																			15 T 8W3012FA		WF	L	**	-6	17 Tim FE900	CuF1A	9661450a	TTD	149	10½x3⅛x¼	DL
5																															
6																															
7	White-Freightliner WF64		196			13470	10.00 20																								
8	WF64T		156	248		13230	10.00 20		Cum NHB	6-5½x6	743	13	575	200-2100	7-4⅛x16		Fu R95C		15 Tim R230	2 Sp	SFD	H	4.77	-5.38	Tim FE900	CuF1A	6451450a	TTD	85	9⅝x3⅛x¼	
9	WF6542T		176	220		10260	10.00 20		Cum NHB	6-5½x6	743	13	575	200-2100	7-4⅛x16		Fu R95C		15 Tim R230	2 Sp	SFD	H	4.77	-5.38	Tim FE900	CuF1A	6451450a	TTD	109	9⅝x3⅛x¼	
10	WF6543T		176	220		10230	10.00 20		Cum NHB	6-5½x6	743	13	575	200-2100	7-4⅛x16		Fu R95C		15 Tim R230	2 Sp	SFD	H	4.77	-5.38	Tim FE900	CuF1A	6451450a	TTD	109	9⅝x3⅛x¼	
11	WF5644T		151	220		12030	10.00 20		Cum NHB	6-5½x6	743	13	575	200-2100	7-4⅛x16		Fu R95C		15 Tim R230	2 Sp	SFD	H	4.77	-5.38	Tim FE900	CuF1A	6451450a	TTD	85	9⅝x3⅛x¼	
12	WF6544		196			13440	10.00 20		Cum NHB	6-5½x6	743	13	575	200-2100	7-4⅛x16		Fu R95C		15 Tim R230	2 Sp	SFD	H	4.77	-5.38	Tim FE900	CuF1A	6451450a	TTD	109	9⅝x3⅛x¼	
13	WF6564		196			13470	10.00 20		Cum NHB	6-5½x6	743	13	575	200-2100	7-4⅛x16		Fu R95C		15 Tim R230	2 Sp	SFD	H	4.77	-5.38	Tim FE900	CuF1A	6451450a	TTD	85	9⅝x3⅛x¼	
14	WF7564		196			13470	10.00 20		Cum NHB	6-5½x6	743	13	575	200-2100	7-4⅛x16		Fu 8QW		15 T 8SW	2 Sp	WF	H	**	-6.84	Tim FE900	CuF1A	9661450a	TTD	149	10½x3⅛x¼	DL

For Key to References and Abbreviations See Page 141

Ford's Desert Proving Grounds

THE new 3840-acre Ford proving ground, 25 miles south of Kingman, Ariz., was carved out of a broad, flat stretch of Mohave county where rain seldom falls, where the noonday sun sometimes pushes the thermometer to 120 deg, and where the dust is occasionally as thick as a London fog.

The area had, in fact, exactly the kind of weather Ford was looking for—extreme heat, low humidity and heavy concentrations of abrasive dust.

Diverse Testing Facilities

In the nearby countryside are the Hualpai mountains which provide long, steep, rocky roads with elevations up to 7000 ft. An old stretch of U. S. Route 66, abandoned by the public when a new route was built, furnishes drivers with winding, chuckhole-ridden highway probably as bad as any the engineers could have designed.

A high-speed test track, oval in shape, is 36 ft wide and five miles around, and is built of asphaltic concrete. Its one-mile straightaways are level; its turns are 2500-ft radius curves, with banking reaching a maximum of 60 per cent grade.

Also in the test area are a network of gravel, rock and dust roads, and two long runways of the abandoned air base.



A combined administration building and garage covering 20,000 sq ft serves as operational headquarters. The garage proper is 80 x 160 ft, with an additional 8000 sq ft covered by marquees to provide a shaded area for outside work.

Completely equipped with modern machinery, the garage has truck hoists capable of lifting loaded trucks for inspection; a wheel alignment pit for accurate front-end alignment of all test vehicles; oil-changing pits; four floor scales with 4700-lb capacity each, for weighing test cars; and two scales with 26,000-lb capacity each, for trucks; lubrication system with overhead reels, and floor-type exhaust system for ventilation.

At a safe distance from the main building is a gasoline service station with four pumps, and underground storage tanks with a total capacity of 24,000 gal. Smaller buildings in the area include a primary power substation, pump house for fire pumps, a fuel analysis building, and one roofless building for checking vapor lock.



unequalled... unrivaled

in Exclusive Completeness!

Full ignition availability... true improvement in ignition performance is emphatically assured when reliance is placed on Filko! Each Filko gem of precision offers extraordinary Crown Jewel performance... ease of installation... and the saving of precious installation time.

Completeness of Filko components engineered for the myriad of varying ignition requirements on highway... lakeway... farm and industrial plant, means certain satisfaction of the highest degree...a true improvement in ignition!

filko

F. & B. Mfg. Co.
4246 W. Chicago Ave.
Chicago 51, Ill.
Warehouses in: Los Angeles, Oakland, Miami, Fort Worth, New York, Boston, Cleveland, Atlanta, Lubbock, Little Rock, Philadelphia. G-1247A

"the Crown Jewels of Ignition"®

More than a replacement part ...a true improvement in Ignition



Mr. Wilson House, president, Eastern Motor Express, Inc. Mr. House inaugurated this company in 1946 with six employees, three terminals, no owned vehicles. Company today operates 450 highway tractors, 605 over-the-road trailers.

Eastern marks 10th with $1,300,000 in MACK

One of the nation's leading trucking firms, Eastern Motor Express, Inc., of Terre Haute, Indiana, completed its tenth year early in 1956 by racking up over $20,000,000 in annual gross revenue.

To assure continued progress, this large fleet's management believes in investing in modern productive equipment. This was amply borne out last year when 120 B-65 Mack light-weight Thermodyne® Diesel tractors were purchased at a cost of more than $1,300,000. And this year, even more Macks will join this growing fleet.

Eastern Motor Express, Inc., like practically all of the nation's big motor freight lines, has found Mack a leader in every department that has a bearing on making money—in fuel economy, in low maintenance, in dependable power, maximum payload capacity, long life, and ease of handling.

When you consider new tractors, be sure to ask your Mack branch or distributor for the full story, and learn why the big swing is to Macks—right down the line. Mack Trucks, Empire State Building, New York 1, N. Y.

BIG LIGHTWEIGHTS, these Mack B-65 LT's enable Eastern Motor Express, Inc., to carry maximum legal loads through its eight-state operation. Shown admiring these capable workers: J. A. Brown, Jr., director of freight service; Lynn Rees, manager of Bedford, Pa., control station; and D. R. House, superintendent of equipment.

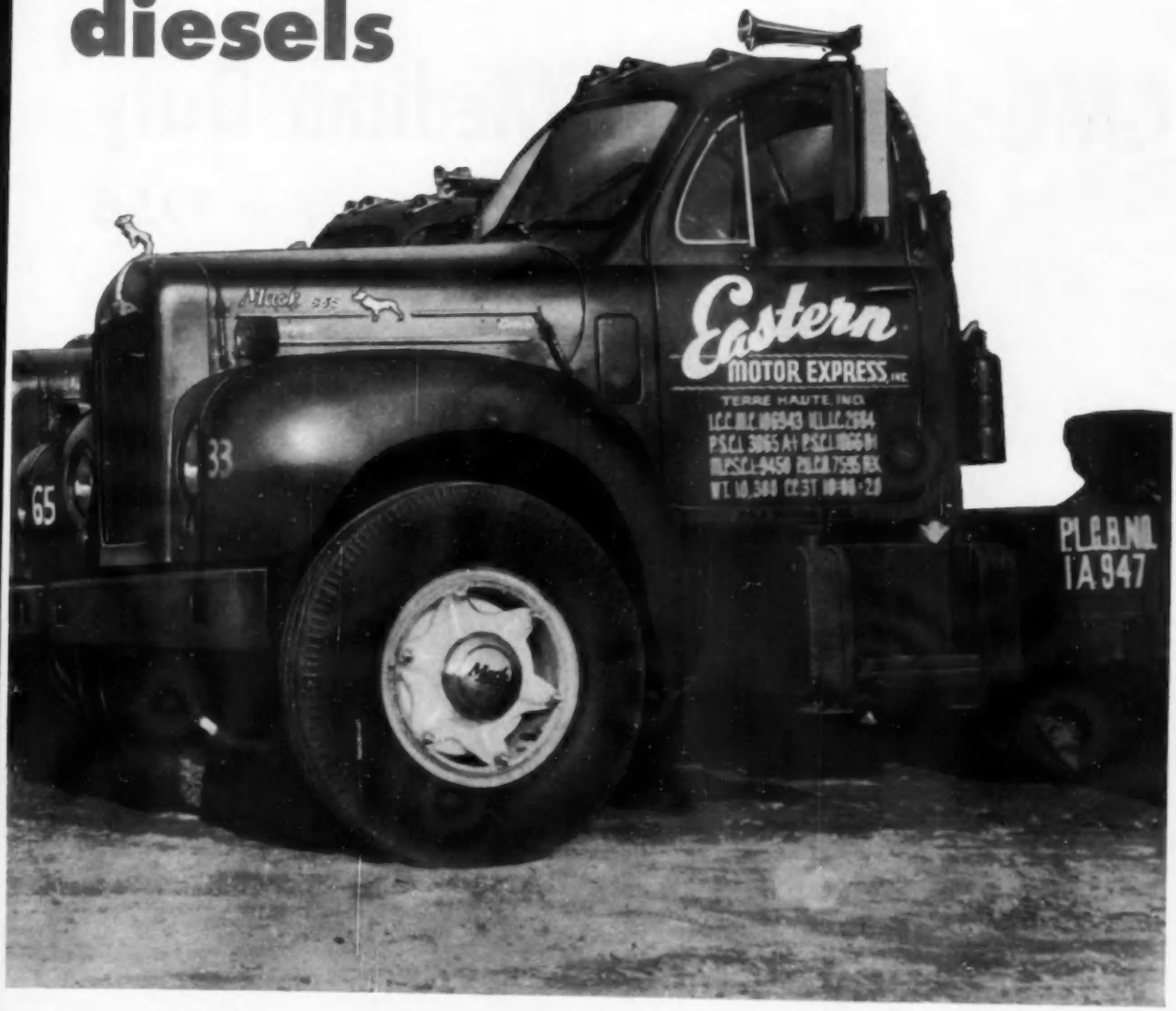


MACK
first name for
TRUCKS

3720

MOTOR EXPRESS, INC.

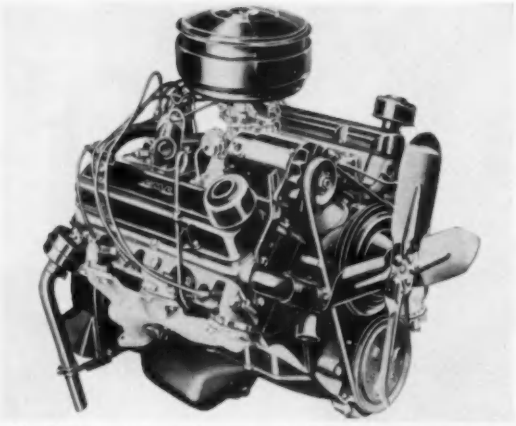
year of progress
investment
diesels





GMC's Light and Medium Duty

For 1956



New 316-cu in. displacement V-8 is rated at 180 hp, a 25 hp increase as compared to last year's model

New featuures offered include 12-volt electrical systems, tubeless tires, road shock dampers, "Kudu" stabilizers, two new axles, power steering

FEATURES of GMC's light- and medium-duty trucks for 1956 include higher horsepower V-8 and 6-cyl engines, road shock dampers, "Kudu" stabilizers, two new axles, tubeless tires, 12-volt electrical systems, power steering and a new 6-stud wheel.

Many of these features are standard equipment across the board in the new line; others are standard on some models, optional on the rest.

Higher Hp Engines

One V-8 and three 6-cyl gasoline engines power the new light- and medium-duty GMC's. With 316-cu in. displacement and a 180-hp rating, the new V-8 is available for every basic model in the entire 100-370 series. Its power rating tops its predecessor by 25 hp.

More horsepower also is evident in the "sixes." One with 130 hp compared to the previous one's 125

(TURN TO PAGE 284, PLEASE)



ANOTHER NEW INTERNATIONAL ...STEERED BY ROSS

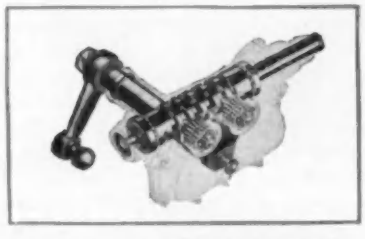
▶ **International Harvester and P-I-E** "team up"—for swift, dependable, economical schedules. And International Trucks handle with almost passenger car ease—thanks to *ROSS Steering.*

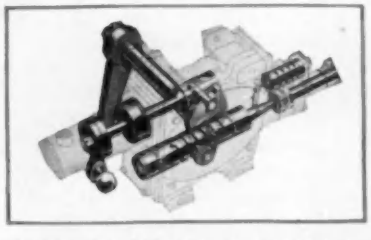
Throughout 50 years of exclusive steering service to the automotive industry, Ross gears have been distinguished for long life, simplicity of adjustment and maintenance of long-recognized qualities of steering *ease, safety, stability* and *performance.*

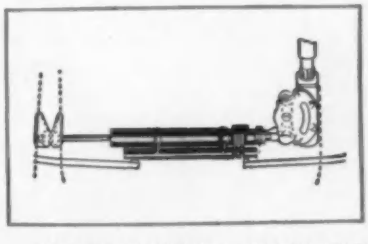
Ross invites discussion of any steering problem—manual or power.

ROSS GEAR AND TOOL COMPANY, INC. • LAFAYETTE, INDIANA

Ross STEERING





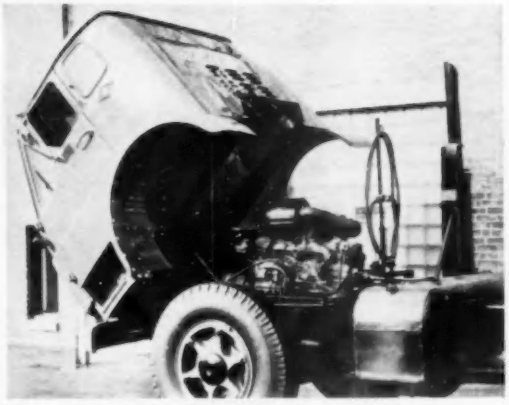


CAM & LEVER MANUAL . . . HYDRAPOWER INTEGRAL . . . HYDRAPOWER LINKAGE



Left. Complete with saddle tanks, rear quarter fenders and fifth wheel new diesel-powered Diamond T COE tractor is shown ready for road

Below. Engine mounted at bench height gives further accessibility in COE model



Cummins JT-6 turbocharged, 175-hp diesel engine combines with COE design to produce a 76-in. from bumper-to-back-of-cab tractor carrying a 60,000 lb GCW rating

Diamond T Diesel Tilt-Cab

DIAMOND T Motor Car Co. is now in production on its Model 723-CJT turbo-supercharged diesel tilt-cab tractor. It features the Cummins JT-6 diesel developing 175 hp at 2500 rpm. Long on the drawing board and prematurely announced middle of last year, the new model has already gained wide acceptance including an order of 100 units from Pilot Freight Carriers of Winston-Salem, N. C. Production is now scheduled at a rate exceeding $5 million a year.

Its high horsepower to weight ratio is considered ideal for highway carriers handling payloads in the 18 to 20-ton range with tandem-axle semi-trailers. As a tractor, the new model is rated at 60,000 lb GCW with a base chassis weight of 9500 lb.

Bumper-to-back-of-cab measurement is 76 in. (84 in. with sleeper cab), permitting use of a 35-ft square-nose, high cube semi-trailer within a 45-ft overall limit.

Turbocharged Engine

The new model combines the basic features of the Diamond T COE line (CCJ, Oct. '54, page 94) with the Cummins JT-6 turbocharged diesel engine (CCJ, July '55, page 94). This engine has a displacement of 401 cu in., develops 405 lb ft of torque, and 175 bhp at governed speed of 2500 rpm. The newest Cummins PT fuel pump is standard.

Power and economy of the engine is due in large part to the

(TURN TO PAGE 290, PLEASE)



1906

"Squeeze-it" auto horn . . . engineered to give 1906 pedestrians a sporting chance. It was in 1906 that Brunner engineers produced the first Brunner Air Compressor.

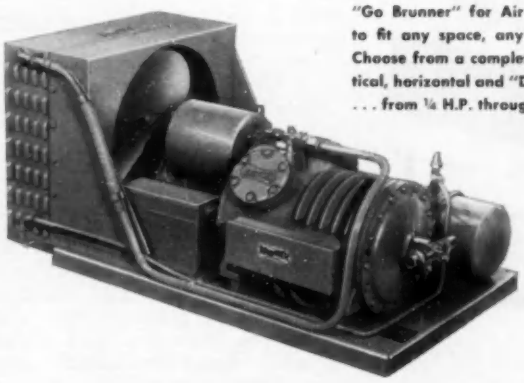
50th Anniversary BRUNNER

PROVEN QUALITY • DEPENDABLE •

TODAY

Brunner experience provides engineered "air power" for the complete range of compressed air needs!

BRUNNER MANUFACTURING COMPANY, UTICA, N. Y.
THE BRUNNER CO., GAINESVILLE, GA.
IN CANADA: BRUNNER CORP. (CANADA) LTD., TORONTO, ONT.



"Go Brunner" for Air Compressors to fit any space, any requirement. Choose from a complete line of vertical, horizontal and "Du-Al" models . . . from ¼ H.P. through 50 H.P.

Also . . . TRUCK REFRIGERATION CONDENSING UNITS available from ¼ H.P. through 2 H.P. . . . in either open-type or semi-hermetic models. Built for easy installation and maintenance.



April News Roundup

1956 Domestic Truck Factory Sales by G.V.W.

	5,000 lb. and less	5,001-10,000	10,001-14,000	14,001-16,000	16,001-19,500	19,501-26,000	Over 26,000	Total
January 1956	38,771	12,976	2,896	15,309	3,289	4,658	5,851	83,752
January 1955	37,040	12,271	3,300	12,015	3,178	2,552	3,591	73,947

Source: Automobile Manufacturers Assn.

E & M Council Meets

Newest developments in trucking maintenance practices—including ICC's brake regulations, tubeless tires, mufflers and power trains—are scheduled for discussion at the annual spring meeting of ATA's Equipment and Maintenance Council, May 15-18, Sheraton Hotel, Chicago. Central theme of the meeting is cutting costs and getting the most from the maintenance dollar.

Wednesday morning's meeting will be on the ICC brake regs with a joint session on the same subject in the afternoon with ATA's Council of Safety Supervisors.

A panel presentation on the theme, "The Manufacturer Meets the Maintenance Man," will be featured Thursday, with equipment manufacturer representatives exchanging problem questions and answers with practical truck operators on such topics as oils and greases, electrical connections, instrumentation, foundation brakes, tires and rims, and parts failure.

Friday's session on maintenance will deal with axles and transmissions. Special emphasis will be placed on proper selection to avoid excessive maintenance cost.

Safety Supervisors Meet

The 17th annual spring meeting of ATA's Council of Safety Supervisors will be held in the Sheraton Hotel, Chicago, May 15-18. Sessions will be held simultaneously with the annual meeting of the ATA Equipment and Maintenance Council.

Awards will be presented to winners of ATA's 1955 National Truck Safety Contest. Topics to be discussed include "Accident Liability From a Legal Viewpoint," "Brake Legislation—Cause and Effects," "Workmen's Compensation—It's Cost to You," "Establishing a Personal Injury Prevention Program in Your Fleet," and "How To Put Public Opinion to Work for You."

Motor truck fleet supervision, supervisor training and certification standards will be discussed. Other subjects for discussion include:

Accident investigation techniques designed to protect motor carriers against legal technicalities which arise in courts months or even years after an accident has occurred. The reasons why new brake legislation is necessary, and how such regulation will affect the industry. How workmen's compensation is paid for, and what it costs. How motor carrier operators can save money by establishing injury prevention programs,

(TURN TO PAGE 294, PLEASE)

HOOF Governors
Reduce All Operating Costs!



tire wear
engine overhauls
gas and oil consumption
brake relinings
insurance premiums
accident hazards
clutch and rear end repairs



Exclusive patented Cantilever Spring assures Hoof's accurate speed control, simplified construction, longer life.

No other single item costs so little and saves so much as Hoof Governors.

Write today for full details.

HOOF PRODUCTS CO.
6543 So. Laramie Ave., Chicago 38, Ill.



MANUFACTURERS OPERATORS DEALERS

Bendix POWER BRAKES

1st choice of the industry!

Perhaps no other group of businessmen is as cost conscious as the men who make up the great trucking industry. For the difference between profit and loss in the truck field is mostly a matter of operating costs.

Therefore, when the truck industry gives overwhelming preference to any one product, you can just bet your bottom dollar the product of their choice is the outstanding value in its field.

That's why every segment of the industry—truck manufacturers, operators, and dealers—agree you can't beat Bendix* Power Brakes for efficiency, long life, and economical operation.

In a way it is only natural that Bendix should receive this industry-wide endorsement, for Bendix has an unrivaled wealth of diversified experience in successfully meeting the braking problems of the industry over the years.

That's why, whatever your power braking requirements, it will pay you to make Bendix—the industry's choice—your choice.

BENDIX PRODUCTS DIVISION SOUTH BEND INDIANA

Export Sales and Service: Bendix International Division, 205 East 42nd Street, New York 17, N. Y.

*REG. U. S. PAT. OFF.

BRAKES • POWER STEERING • POWER BRAKING
• CONSTANT VELOCITY UNIVERSAL JOINTS
• HYDRAULIC REMOTE CONTROLS

Bendix Products Division

Bendix AVIATION CORPORATION

Selected Maintenance Films for Mechanic Training

THIS LIST of maintenance training films has been selected to provide effective and efficient instruction for mechanics in bus and truck fleets. The step-by-step procedures and the basic background material will ideally supplement other instruction, save you time and money in the long run.

For your convenience, the films in this list have been divided into the following sections:

1. Brakes
2. Clutches and Transmissions
3. Electrical and Ignition Systems
4. Engines
5. Fuels and Lubricants
6. Tools and Procedures
7. Welding Techniques

In each section, films are arranged alphabetically by title. Following the title is the running time, a brief description of the film, whether free loan or rental, and a numerical reference to the source list beginning on page 175.

Most of these films are available for your use without cost—you pay only transportation and insurance. Others carry a nominal rental charge. Projectors for showing them, if not otherwise obtainable, can usually be rented in any city at low cost. Because of demand, films should be ordered as far in advance as possible. Films in this list are sound films unless otherwise indicated and **should never be shown in silent type projector** as it destroys the sound track.

Brakes

Air Brakes, Operation and Maintenance, Part 1—24 min—Covers truck and tractor air brakes. Free loan—4.

Air Brakes, Operation and Maintenance, Part 2—21 min—Covers trailer air brakes. Free loan—4.

Safest Thing on Wheels—50 min—Shows how to reline and adjust all popular types of automobile brakes and how to service hydraulic brake systems. Rent—40.

Short Stops—10 min—Describes operation of automobile hydraulic brakes and how to use them effectively. Free loan—13.

Clutches and Transmissions

R45 Roadranger—20 min—In color, it covers operation and construction of the Fuller R45 "Roadranger" transmission. Free loan—16.

Service Procedure for Ball Bearings—20 min—Instructional film showing how to remove, service and install ball bearings in vehicles. Free loan—18.

That's the Torque Converter—22 min—Detailed showing of principles of torque conversion. Free loan—2.

Electrical and Ignition Systems

Ignition Engineered—35 min—Describes function and operation of the ignition system. Free loan—10.

Ignition and Spark Plugs—19 min—Illustrates cleaning and testing of spark plugs. Shows relationship of spark plug to ignition system. Free loan—5.

Johnnie Plug Check—30 min—Color

(TURN TO PAGE 168, PLEASE)

For all-day driving comfort, choose American Seating Driver's Seats

American Seating now brings you the finest in comfort, the utmost in safety and convenience, in its American Driver's Seats. With new durability, new comfort-support, you can cut down on driver fatigue, increase operating efficiency. Unique adjusting devices permit full-range adjustability to suit each driver! Next time you order driver's seats, ask for American Seating. And for further details, call, wire, or write your American Seating man, today.



Driver's Seat, Model 300: Wide, full-depth, foam-rubber cushion is shaped for best leg support. Contoured side wings offer greater safety, help keep driver in seat on turns. Seat is adjustable fore-and-aft to five positions, 4" range. Adjustable vertically to four positions, 3" range. Cushion tilt adjusts to three positions, back pitch to five positions. Available in attractive two-tone color combinations.



Light Delivery Truck Seat, Model 0-4418: Full-depth, foam-rubber cushion. Oven-baked enamel finish on all exposed metals. Entire seat hinges at floor, and back pad hinges to fold against cushion. Vertical adjustment, 4" range with five positions. Covered in vinyl-coated fabric upholstering with nylon-stitched seams. Covers perforated for ventilation.

AMERICAN SEATING

GRAND RAPIDS 2, MICHIGAN

Branch Offices and Distributors in Principal Cities. Manufacturers of Transportation, School, Theatre, Auditorium, Church, Stadium Seating, and Folding Chairs.

WORLD'S LEADER IN PUBLIC SEATING



E-Z-EYE Reduces Glare!

Over 5,000,000 cars (like the one shown here) are equipped with E-Z-Eye glare-reducing windshields. Doesn't it make sense to have it in your *trucks*?

E-Z-Eye Safety *Plate* Glass shields your eyes from sun and sky glare. And it keeps your truck cooler and more comfortable. Try driving behind an E-Z-Eye windshield with its shaded band of neutral blue. We think you'll want E-Z-Eye in *your* next truck.

For further details call your Libbey·Owens·Ford Distributor (listed under "Glass" in the yellow pages). Or write Dept. 5446, Libbey·Owens·Ford Glass Company, 608 Madison Ave., Toledo 3, O.

LOF GLASS

E-Z-EYE SAFETY PLATE GLASS

with the shaded windshield

Reduces Glare, Eyestrain, Sun Heat

LIBBEY • OWENS • FORD GLASS COMPANY • TOLEDO 3, OHIO

Maintenance Films

Continued from Page 166

film on procedure for checking spark plugs. Free loan—10.

Story of a Spark Plug—33 min—Shows how to install spark plugs and describes causes of faulty performance. Also includes spark plug manufacture. Free loan—5, 41.

Story of the Storage Battery—32 min—Describes principle, operation and use of the storage battery. Also covers battery manufacture. Free loan—41.

Engines

The ABC of Internal Combustion—13 min—Animated, color film explaining basic principles of internal combustion engines. Free loan—18.

The ABC of the Automobile Engine—18 min—Animated, color film describing in detail parts and workings of internal combustion engines. Follow-up film to "The ABC of Internal Combustion." Free loan—18.

The ABC of the Diesel Engine—20 min—Animated, color film on diesel engine fundamentals. Follow-up film to "The ABC of Internal Combustion." Free loan—18.

Cylinder Block Overhaul—30 min—Covers engine overhaul on a Continental R600 engine. Free loan—7.

Cylinder Head Overhaul—30 min—Describes procedure for cylinder head overhaul on a Continental overhead valve engine. Free loan—7.

Diesel Story—20 min—Thorough explanation of the principle of the four-stroke diesel engine. Free loan—35.

Diesel . . . The Modern Power—21 min—Both 4 and 2-cycle engines are discussed. Engine is assembled and function of each part explained. Free loan—18, 41.

Engine Tune-Up—30 min—Tune-up and preventive maintenance with Continental engines and Diamond T trucks is described in this film. Free loan—7.

A Good Valve Job Pays—23 min—Describes complete procedure for doing a valve job. Free loan—11.

International Diesel Power—20 min—Explains features and shows operation of the International diesel engine. Free loan—21.

Longer Engine Bearing Life—26 min—Color film describing engine, bearing maintenance. Free loan—14.

The Power Within—20 min—Describes the creation of power in the automobile internal combustion engine, illustrating the operation of each part, and explains how power is transmitted to the rear wheels. Free loan—41.

Professor Otto Trouble—16 min—Animated film on automobile cooling system troubles and proper maintenance practices. Free loan—28.

A Sure Bet—40 min—Shows correct way to install piston rings. Includes some entertaining examples of what not to do when working on an engine. Free loan—31.

Where Mileage Begins—19 min—Animated film describes gasoline engine operation, what happens when gears are shifted. Functions of parts are explained as an engine is assembled. Free loan—18.

Fuels and Lubricants

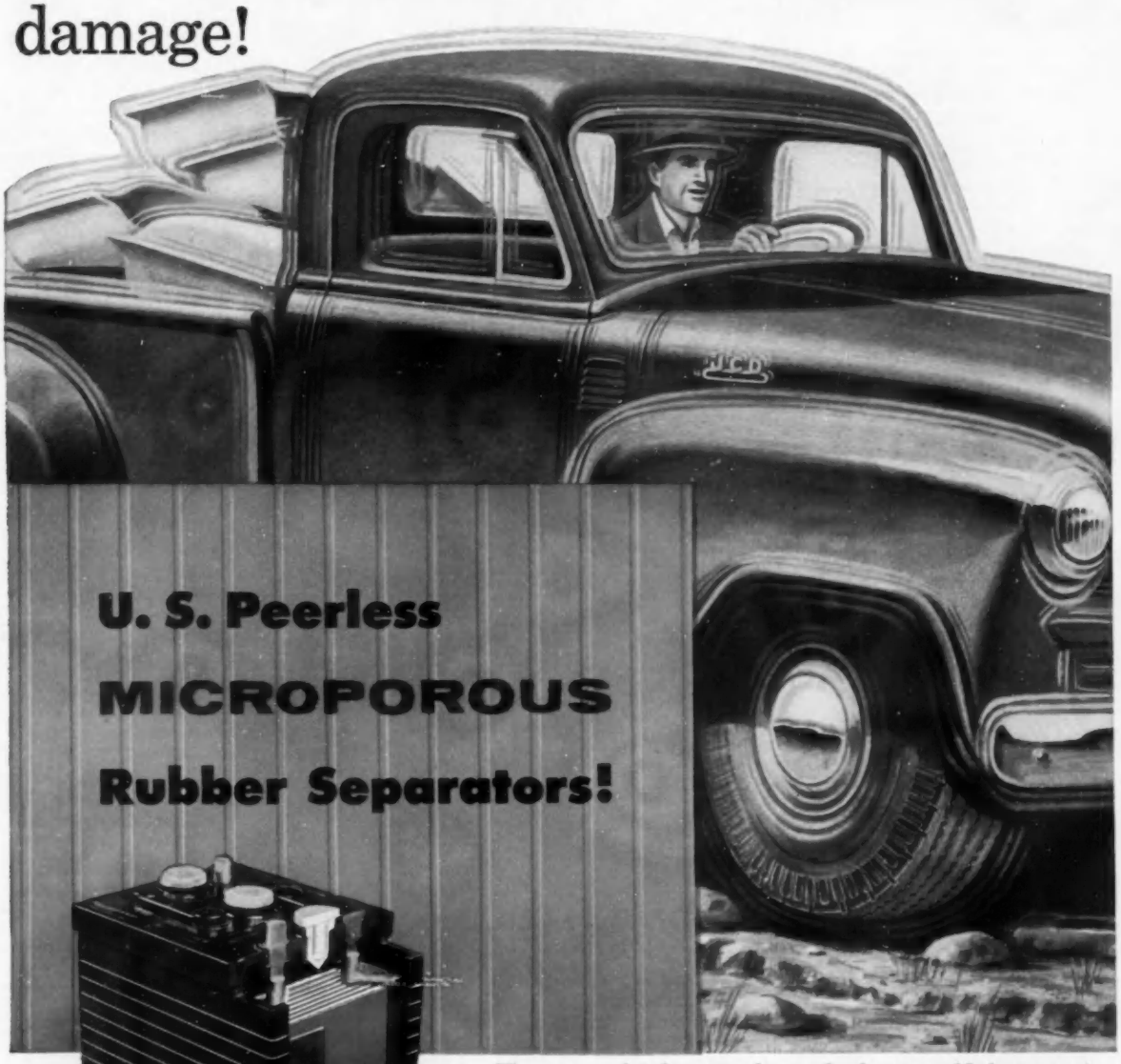
Basic Principles of Lubrication—25 min—Explains basic theory and function of lubrication in the engine using U. S. Army trucks as examples. Shows how it reduces friction, cools moving parts, keeps power in the cylinder and prevents contamination and deterioration. Free loan—18.

For Better Performance—15 min—Color film in cartoon style that illus-

(TURN TO PAGE 170, PLEASE)



Protects batteries against vibration damage!



U. S. Peerless MICROPOROUS Rubber Separators!

The automotive battery takes a lot of vibration and jarring, causing the plates to damage the ordinary battery separator—resulting in shorts and battery failure. But this doesn't happen when the separators are U. S. Peerless. *These rugged separators stand up under vibration, give longer service than any other separator.* They are known as battery savers.

U. S. Peerless has other big advantages: it cannot be harmed by battery acid, heat or plate pressures—will not get mushy or soft in service. High mechanical strength prevents cutting by warped plates or loose plate material. Peerless even *outlasts* the plates. It assures more economical operating costs. In cold weather, it gives 20% faster cranking speed, 10% more power. *Protect your battery investment* by making sure your batteries have Peerless Rubber Separators.

Electrical Wire & Cable Department

United States Rubber

Maintenance Films

Continued from Page 168

trates function of gasoline in an engine. Covered in the film are vapor lock, knock, preignition, additives and impurities. Free loan—11.

It's Mighty Cheap Insurance—30 min—Color film on the reasons for and the advantages of regular oil change. Shows how engine is lubricated. Free loan—39.

Lubrication — 30 min — Describes theory of friction and application of lubricants in a vehicle. Free loan—41.

Oil Films in Action—18 min—Technical film in color for engineers showing effect of oil film in bearing life. Free loan—18.

Slow Motion Study of Fuel Injection and Combustion in a Diesel Engine—33 min—Silent, advanced technical film on diesel engine fuel injectin and combustion. Free loan—26.

Slow Motion Study of Normal Combustion, Preignition and Knock in a Spark Ignition Engine—33 min—Silent, advanced technical film on gasoline engine combustion. Free loan—26.

A Study of Combustion in a Spark Ignition Engine — 17 min — Shorter version of the above film. Also silent. Free loan—26.

Thanks to the Atom—25 min—Tells how radioactive piston rings were used in motor oil development. Interesting for the data shown about piston ring lubrication function. Free loan—37.

The Why of Automobile Lubrication—24 min—Color film on why lubrication is necessary. Free loan—41.

Tools and Procedures

The ABC of Hand Tools, Part 1—18 min—Animated, color film shows how to handle such tools as hammers, screwdrivers, pliers and wrenches. Free loan—18.

The ABC of Hand Tools, Part 2—15 min—Animated, color film shows how to handle such tools as files, saws, chisels, planes, drills and punches. Free loan—18.

Add Power to Your Hands—20 min—Shows the "power" added through proper use of correct tools. Free loan—42.

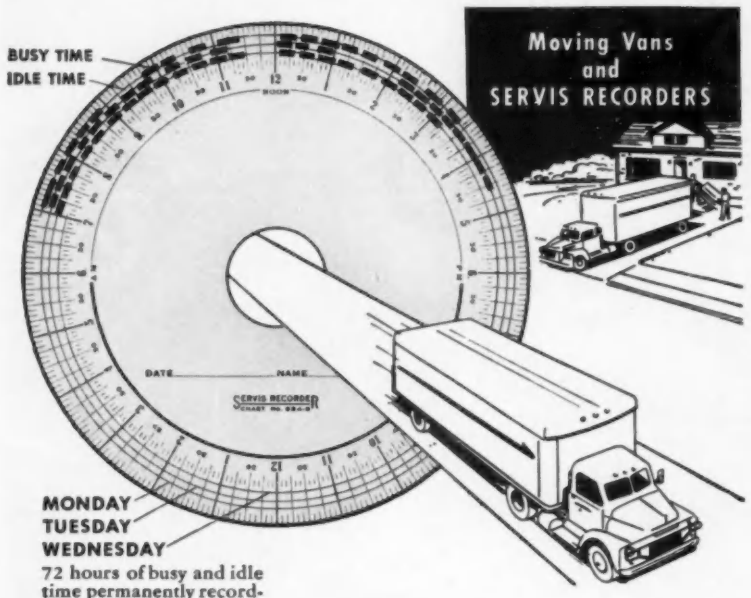
Curve Control — 8 min — Explains operation of various types of steering mechanisms. Rent—23.

For Safety's Sake—15 min—Demonstrates safe use of power-driven, hand tools. Rent—29, 34.

FWD Story—25 min—Color film showing principle and operation of Four Wheel Drive trucks. Free loan—15.

Grinding Cutter Bits — 20 min — Color film shows correct way to grind

(TURN TO PAGE 172, PLEASE)



72 hours of busy and idle time permanently recorded—7 days if desired.

SHORT HOPS OR LONG HAULS

Keep your vans on the move!

Whether your moving vans operate on long cross-country hauls, or on short intra-city trips, Servis Recorders will increase the productivity of your equipment.

On over-the-highway hauls, Servis Recorders not only record the total time of each trip, but also show the idle time and the starts and stops throughout each day. On short hauls, you can maintain pinpoint scheduling because the Servis Recorder will reveal loading and unloading time, chart all delays, and show the time your vehicle left and returned to the garage.

America's leading long distance movers use Servis Recorders to reduce costly delays and get more productive time from their moving vans.

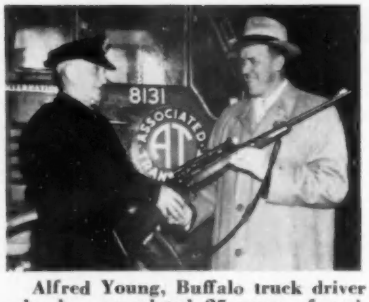
Write today for free pamphlet—"The Instrument That Cuts Truck Costs," The Service Recorder Co., 1375F Euclid Ave., Cleveland 15, Ohio.



The Servis Recorder

Tells Every Move Your Truck Makes

Drive Safely and Hunt



Alfred Young, Buffalo truck driver who has completed 25 years of accident free driving, is shown as he receives a Model 70 Winchester rifle from Robert Swanson of Winchester. Presented on behalf of Associated Transport, Inc., the rifle represented an award that Young most desired. In his 25 years on the road, Young has covered nearly two million miles. He is 54 years old, has four daughters and two grandchildren.



Don't get trapped into buying inferior brake linings and blocks. Avoid pitfalls and serve customers better by remembering one fact: BENDIX-ECLIPSE is on more new vehicles than any other make.



MARSHALL-ECLIPSE DIVISION OF Bendix AVIATION CORPORATION TROY, NEW YORK

Maintenance Films

Continued from Page 170

tools for different lathe operations. Free loan—36.

The Grinding Wheel, Its Care and Use—17 min—Color film shows care and precautions necessary for efficient use of grinding wheels. Gives correct dressing procedures. Free loan—30.

Grinding Wheel Safety—20 min—Color film covers principal causes of grinding wheel breakage. Discusses selection of grinding wheels. Free loan—30.

How to Form Aluminum, General Sheet Metal Practice—20 min—Bending, hammering, beading, flanging, edging and otherwise forming sheet aluminum, both manually and mechanically, is covered in this film dealing largely with industrial procedures. Free loan—3.

How to Machine Aluminum—32 min—Outlines practices employed in machining aluminum with hand and machine tools. Free loan—3, 41.

How to Rivet Aluminum—27 min—Explains procedures and techniques in riveting aluminum. Selection of various types of rivets is also included. Free loan—41.

Keep Them Rolling—8 min—Decribes use of air-powered impact wrenches, hydraulic truck jacks and body repair tools in fleet maintenance. Free loan—6.

Making the Most of the Spray Painting Method—45 min—Illustrates the four basic principles of spray painting — proper equipment, control factors for high quality results, painting technique and equipment care, cleaning and maintenance. Free loan—9.

The Metalworking Lathe—20 min—Color film on basic metalworking lathe operation. Function of each part is described. Free loan—36.

Plain Turning—20 min—Color film illustrates all operations necessary in machining a shaft. Free loan—36.

Pliers—Their Use and Care—20 min—Illustrates proper use and care of pliers. Free loan—42.

Pulling for Profits—20 min—Demonstrates basic fundamentals of the NoSPIN differential. Shows how it operates. Free loan—8.

School Bus Operation, Part 1, Bus Care and Maintenance—13 min—Outlines points to be checked in daily and weekly maintenance of school buses. Free loan—13. Rent, 20, 24, 27, 38.

School Bus Safety—18 min—Discusses maintenance and operational procedures for school buses. Includes material on transporting school children safely. Rent—19, 43.

The Truck that Tips Its Cab to Service—30 min—Describes how the White tilt cab operates. Free loan—45.

Use and Care of Hacksaws—18 min—Shows proper use and care of hacksaws, and accident hazards to be avoided in their use. Free loan—33. Rent—29.

Use and Care of Hammers—11 min—Shows proper use and care of hammers, and accident hazards to be avoided in their use. Free loan—33. Rent—29.

Use and Care of Chisels—12 min—Shows proper use and care of chisels, and accident hazards to be avoided in their use. Free loan—33. Rent—29.

Use and Care of Pliers and Screwdrivers—17 min—Shows proper use and care of pliers and screwdrivers, and accident hazards to be avoided in their use. Free loan—33. Rent—29.

Use and Care of Punches, Drifts and Bars—14 min—Shows proper use and care of punches, drifts and bars, and accident hazards to be avoided in

(TURN TO PAGE 175, PLEASE)

Danny Dollar Says...



for Real Get-Up-and-Go...

Use a NIEHOFF

SERVICE STOCK SYSTEM

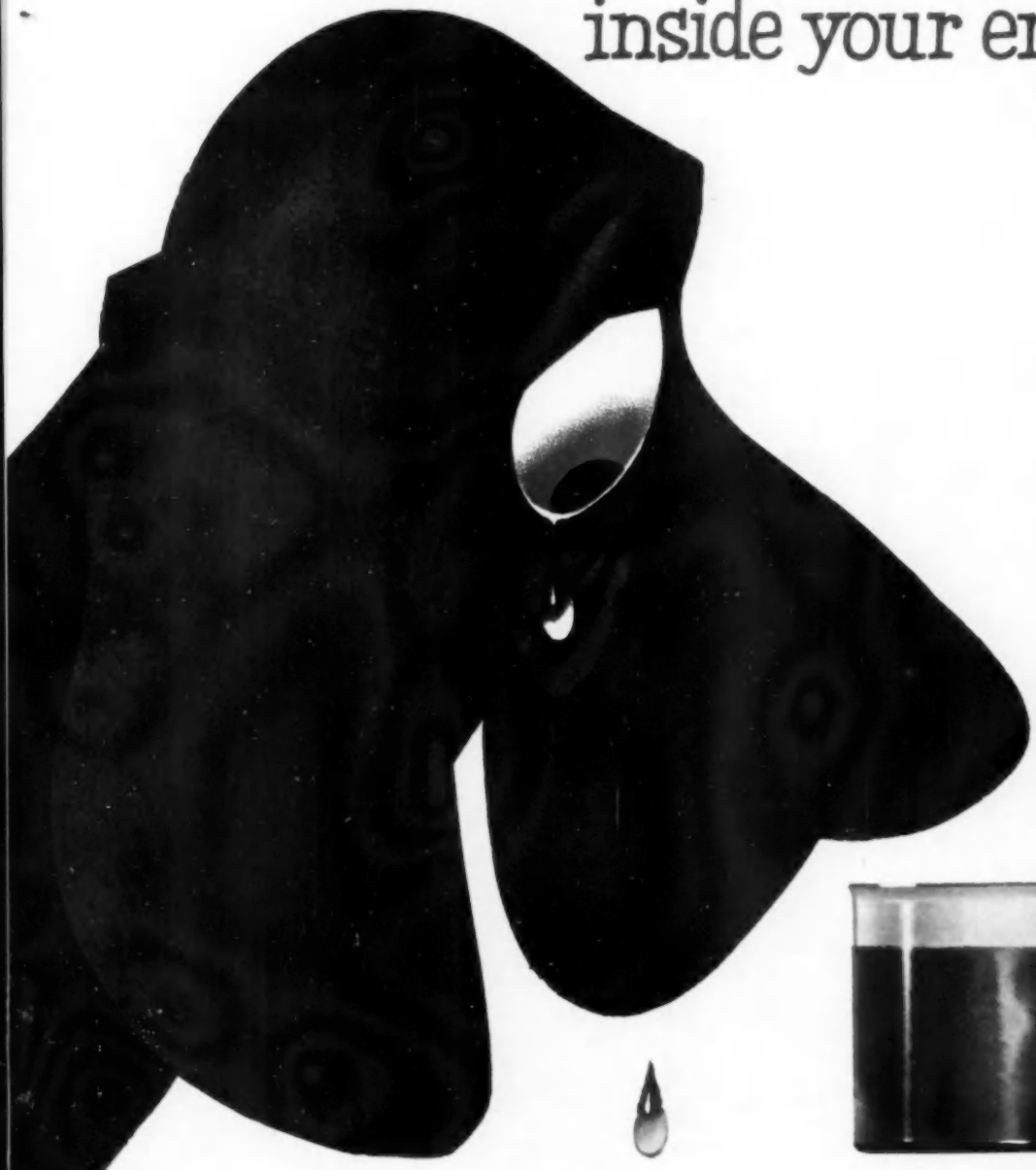
- The real cost of Niehoff parts is measured by the "get-up and go" performance they spark... and the way they keep going at peak efficiency. Ask your jobber about the record of dependability these parts have achieved for other fleet owners and commercial repair shops. Your jobber has a complete line of Niehoff Ignition Parts engineered for all makes and models of popular trucks, buses, cars and tractors.

C. E. NIEHOFF & CO.

4925 W. LAWRENCE AVE. • CHICAGO, ILLINOIS

WAREHOUSES: NEW YORK 19, N.Y., 250 W. 54th Street PHILADELPHIA, PA., 1631 Fairmont Ave. BOSTON 34, MASS., 254 Brighton Ave. BRANCHES: LOS ANGELES 15, CALIF., 1330 W. Olympic Blvd.

PURE doesn't need a Bloodhound to sniff out trouble inside your engine ...



Just give us one pint of your used oil . . . we'll give you a complete engine analysis—FREE!



Free Pure Oil service saves costly engine repairs

Pure-sure Used Oil Analysis tracks down hidden engine trouble . . . cuts operating costs—increases efficiency.

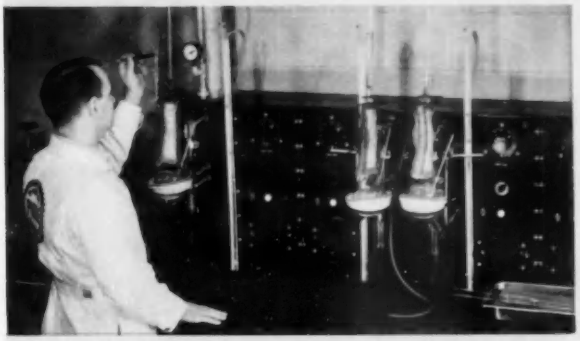
By analysing just one pint of used motor oil, Pure Oil scientists can give you a complete report on your fleet engine's condition. What they find may save you costly repairs. Or they may tell you how to cut operating costs. Or increase efficiency.

Pure-sure Used Oil Analysis is offered *free* on a regular basis to fleet users of Pure Oil products. They find it's just like looking inside the engine without even taking the head off. What's more, the unit is on the road carrying a payload while the analysis is being made.

To show you how valuable this free service can be to your fleet operation, Pure Oil wants to give you a *free* Used Oil Analysis for one of your units. Call your nearest Pure Oil office or mail the coupon for complete details.

This offer limited to the 24-state area where Pure Oil products are sold.

Here's how it works:



Your pint of used motor oil is run through 17 controlled laboratory tests by Pure Oil technicians in the Research and Development Laboratories at Crystal Lake, Illinois.



From the results of the analysis, a complete report is sent you recommending changes in operating procedure or warning of possible engine trouble.



Serious engine damage—such as this piston failure—can then be avoided or corrected. You save a possible big repair bill and costly down-time.

THE PURE OIL COMPANY, DEPT. 631
35 East Wacker Drive, Chicago 1, Illinois

Without cost or obligation, please send me information on how I may obtain a Pure-sure Analysis of my used oil.

Name_____

Title_____

Company_____

Address_____

City_____ Zone____ State_____

Be sure with Pure

BE SURE PURE WITH PURE

6010

Maintenance Films

Continued from Page 172

their use. Free loan—33. Rent—29.

Use and Care of Wrenches—20 min—Shows proper use and care of wrenches, and accident hazards to be avoided in their use. Free loan—33. Rent—29.

Welding Techniques

Advanced Welding Techniques—10 min—Shows selection of electrodes for AC welding. Demonstrates practical aspects of welding techniques. Free loan—44.

Advantages of AC Welding—19 min—Easy to understand presentations in color of principles and applications of AC welding of iron and steel. Free loan—44.

Arc Welding Aluminum—10 min—Explains techniques for metal, carbon and hydrogen arc welding of aluminum. Free loan—3, 41.

Arc Welding Stainless Steel—20 min—Explains technique for electric arc welding of stainless steel. Free loan—1.

How to Weld Aluminum, Resistance Welding—12 min—Explains technique of resistance welding aluminum. Free loan—3, 41.

How to Weld Aluminum, Torch Welding—17 min—Explains technique of torch welding aluminum. Free loan—3.

The Inside of Arc Welding—6 parts, each 10 min—Film No. AS-2481 covers arc welding fundamentals; the other five show fillet and groove welding in flat position—Film No. AS-2482, horizontal position—Film No. AS-2483, vertical position—Film No. AS-2485, overhead position—Film No. AS-2486, and Film No. AS-2484 describes use of larger electrodes. In color. Free loan—17.

New Horizons in Aluminum Brazing—22 min—Color film illustrates advantages of and how to join aluminum parts by brazing. Free loan—3.

New Welding Procedures—19 min—Color film showing step-by-step procedures on welding rod and electrode techniques. Torch and metallic arc welding are shown as well as chamfering, cutting, grooving. Free loan—12.

Prevention and Control of Distortion in Arc Welding—20 min—Explains how to overcome metal distortion in arc welding. Free loan—25.

Resistance Welding of Stainless Steel—22 min—Color film describes spot, seam, projection and butt resistance welding of stainless steel. Free loan—1.

Safety for Welders—7 min—Illustrates protective clothing and equipment for welders to prevent eye injuries and metal fume poisoning. Rent—22, 32.

A Story of Arc Welding—24 min—Color film on various uses, tecnniques and theory of arc welding. Many automotive scenes are included. Free loan—41.

This Is Resistance Welding—25 min—Color film describing resistance welding techniques. Ask for Film No. AS-2583. Free loan—17.

Welding, the Safe Way—18 min—Training film for new welders illustrates safe working conditions for most welding operations. Rent—29.

SOURCE LIST

NUMBERS refer to the numbers at the end of the description of each film. Where more than one source is given, write to the closest address.

1. Allegheny-Ludlum Steel Corp.
   2020 Oliver Bldg.
   Pittsburgh 22, Pa.

(TURN TO NEXT PAGE, PLEASE)

THE ONLY COMPLETE LINE OF MUFFLERS THAT MEET ALL RECOGNIZED ANTI-NOISE STANDARDS!

ATI ENGINE-MATED HEAVY DUTY MUFFLERS

Save money in fines . . . get peak power, quietly . . . get better driver comfort . . . get ATI "Engine Mated" heavy duty mufflers—the only complete line of mufflers that meets *all* recognized anti-noise standards for *all* trucks.

ATI "Engine Mated" mufflers are the only mufflers custom specified to the cubic inch displacement of the engines in all makes of trucks made up to and including 1956 to give you:



PEAK POWER, QUIETLY...
Because these mufflers meet or better engine manufacturers' back pressure requirements, and, equal or better Automotive Manufacturers' American Trucking Association and all other recognized noise standards.

LONGER MUFFLER LIFE...
Because ATI mufflers are made of heavy gauge steel, all welded for added strength ... fully guaranteed against defects in material and workmanship.

GREATER SAVINGS...
Because you get lower engine operating cost per mile, longer muffler life, fewer replacements, less maintenance.

GET PROOF today of all the advantages ATI "Engine Mated" mufflers can give you. See your ATI Distributor or write direct. Dept. CCJ

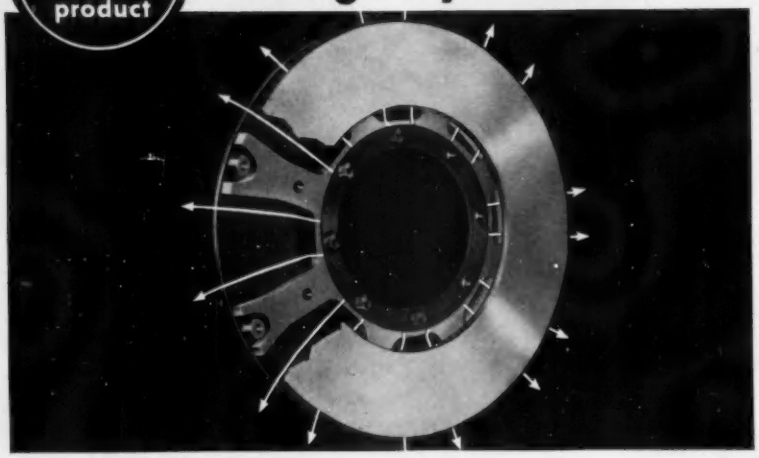
ATI ENGINE-MATED HEAVY DUTY MUFFLERS

Alexander-Tagg
INDUSTRIES, INC.
HATBORO, PA.
OSborne 5-7200

Manufacturers of replacement mufflers, dual wheel dollies

an ACCO product

Specify Tru-Stop Emergency Brakes

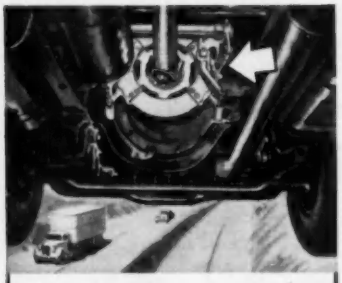


This Brake "Breathes"— and Linings Last Longer

• Terrific heat generated in braking cuts lining life—adds to maintenance costs. TRU-STOPS quickly dissipate this heat—make linings last longer.

That's why leading manufacturers of trucks, buses, tractors and special automotive equipment offer TRU-STOP Emergency Brakes as either standard or optional equipment.

When you specify TRU-STOPS for factory installation you get all these braking extras...



• Most of the disc is exposed to the air even during braking. A cooling jet of air circulates through the disc and prolongs lining life. Illustration shows drive shaft mounting.

Real Emergency Brakes
Serve as auxiliary brakes, assisting service brakes on down-grade if required. They will stop the vehicle, too.

Smooth, Positive Stops
Prevent accidents by insuring quick, positive stops.

Positive Parking Brakes
Hold vehicles safely on steep grades and prevent "parking brake" accidents.

Lower Service Requirements
Mounted directly on drive shaft, simplicity of design and easy accessibility reduce maintenance requirements. It is not necessary to drop drive shaft for either relining or adjustment.

For full details on TRU-STOPS, write for booklet

ACCO
TRADE MARK

Automotive and Aircraft Division
AMERICAN CHAIN & CABLE

601 Stephenson Bldg., Detroit 2
2216 South Garfield Ave., Los Angeles 22 • Bridgeport 2, Conn.

TRU-STOP Emergency Brakes

Maintenance Films

Continued from Page 175

2. Allis-Chalmers Mfg. Co.
   Adv. and Industrial Press Dept.
   Milwaukee 1, Wis.
3. Aluminum Co. of America
   Motion Picture Section
   854 Alcoa Bldg.
   Pittsburgh 19, Pa.
4. Bendix Westinghouse Automotive Air Brake Co.
   901 Cleveland Rd.
   Elyria, Ohio.
5. Champion Spark Plug Co.
   Sales Dept.
   Toledo 1, Ohio.
6. Chicago Pneumatic Tool Co.
   Advertising Dept.
   6 East 44th St.
   New York 17, N. Y.
7. Continental Motors Corp.
   Att.: Howard Johnson
   205 Market St.
   Muskegon, Mich.
8. Detroit Automotive Products Corp.
   8701 Grinnel Ave.
   Detroit 13, Mich.
9. DeVilbiss Co.
   300 Phillips Ave.
   Toledo 1, Ohio.
10. Electric Auto-Lite Co.
    Advertising Dept.
    Toledo 4, Ohio.
11. Ethyl Corp.
    Chief Automotive Engineer

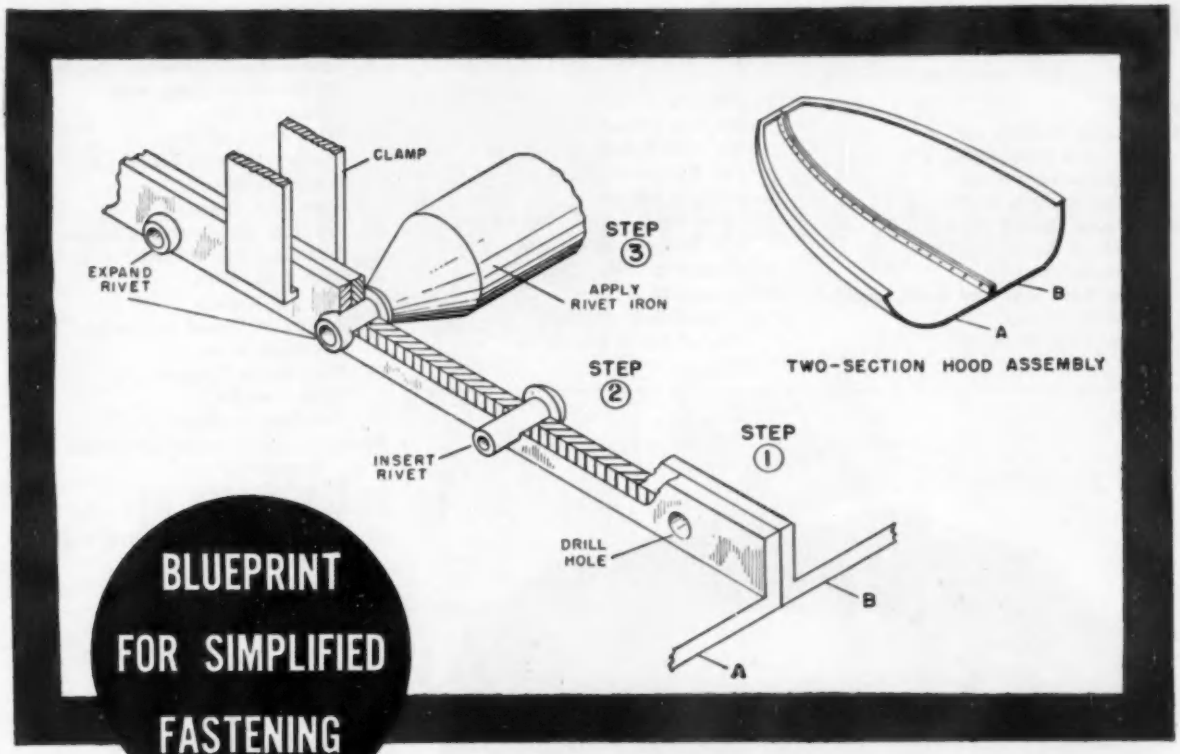
    100 Park Ave.
    New York 17, N. Y.

    310 South Michigan Ave.
    Chicago 4, Ill.

    National Bank of Tulsa Bldg.
    Tulsa 3, Okla.

    1141 Huntley Drive
    Los Angeles 26, Cal.
12. Eutectic Welding Alloys Corp.
    40-40 172nd St.
    Flushing 58, N. Y.
13. Farm Bureau Mutual Auto Ins. Co.
    Safety Dept.
    246 North High St.
    Columbus 16, Ohio.
14. Federal-Mogul Corp.
    11031 Shoemaker Ave.
    Detroit, Mich.
15. The Four Wheel Drive Auto Co.
    Clintonville, Wis.
16. Fuller Mfg. Co.
    Transmission Div.
    Service Sales Dept.
    Kalamazoo, Mich.
    Contact local White Motor Co., GMC Truck & Coach Division, International Harvester Co. or Diamond T Motor Car Co. branch

(TURN TO PAGE 178, PLEASE)



Save 2½ hours in hood assembly time with Du Pont Industrial Rivets

There's no trick to the job of assembling truck or bus engine hoods when you use Du Pont Industrial Rivets. The sections are easily and securely joined together . . . won't rattle loose under rough going. Simple method shown above is a real timesaver. Attach clamps . . . drill hole (Step 1) . . . insert Rivet (Step 2) . . . apply heated riveting iron (Step 3) . . . and presto—job's done! Note expanded head on shop end of Rivet.

Setting Industrial Rivets is a one-man job. No bucking bar is needed, and an operator can easily set from 20 to 25 a minute. Tight corners . . . blind riveting . . . or work along open seams . . . present no problems to these versatile Rivets. Try them. They'll save time and do a factory-like job for you in your own shop. Contact your jobber, or write: E. I. du Pont de Nemours & Co. (Inc.), Explosives Dept., Wilmington 98, Del.



One-piece Industrial Rivets lock hood assembly securely together . . . have no parts to come loose from stress and strains of cross-country travel.

DU PONT

INDUSTRIAL RIVETS

A Product of Du Pont Explosives Research

DU PONT

REG. U.S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING . . . *THROUGH CHEMISTRY*

Maintenance Films

Continued from Page 176

17. General Electric Co.
Adv. and Sales Prom. Div.
Distribution Section
Schenectady 5, N. Y.
18. General Motors Corp.
Dept. of Public Relations
Film Section
New York City and Long Island
1775 Broadway
New York 19, N. Y.

Eastern States
General Motors Bldg.
Detroit 2, Mich.

Western States
508 San Francisco Bank Bldg.
405 Montgomery St.
San Francisco 4, Cal.

19. Univ. of Illinois
Audio-Visual Aids Service
Div. of Univ. Extension
Champaign, Ill.
20. Indiana Univ.
Audio-Visual Center
Div. of Adult Education
1804 East 10th St.
Bloomington, Ind.
21. International Harvester Co., Inc.
180 North Michigan Ave.
Chicago 1, Ill.
22. State Univ. of Iowa
Bureau of Audio-Visual Inst.
Extension Div.
Iowa City, Iowa
23. The Jam Handy Organization
2821 East Grand Blvd.
Detroit 11, Mich.
24. Univ. of Kansas
Bureau of Visual Instruction
Lawrence, Kan.
25. The Lincoln Electric Co.
12818 Coit Rd.
Cleveland 1, Ohio.
26. National Advisory Committee for Aeronautics
1724 F St., NW.
Washington 25, D. C.
27. National Board of Fire Underwriters
Film Library

East of Rocky Mts.
Bureau of Communication Research
13 East 37th St.
New York 17, N. Y.

West of Rocky Mts.
Merchants Exchange
San Francisco 4, Cal.
28. National Carbon Co.
Div. of Union Carbide and Chemical Corp.
30 East 42nd St.
New York 17, N. Y.
29. National Safety Council
Film Bureau
425 North Michigan Ave.
Chicago 11, Ill.
30. Norton Co.
Publicity Dept.
Worcester, Mass.
31. Perfect Circle Corp.
School Assistance Dept.
Hagerstown, Ind.
32. Princeton Film Center
Princeton, N. J.
33. Proto Tool Co.
2209 Santa Fe Ave.
Los Angeles 54, Cal.
34. Sarra, Inc.
16 East Ontario St.
Chicago 11, Ill.
35. Shell Oil Co.
Film Library, Room 4226
50 West 50th St.
New York 20, N. Y.
36. South Bend Lathe Works
425 East Madison St.
South Bend 22, Ill.
37. Standard Oil Co. of Cal.
Marketing Dept., Lubricant Div.
Standard Oil Bldg.
San Francisco 20, Cal.

(TURN TO PAGE 182, PLEASE)

May 21, 1927—7:54 A.M.



"WE" WERE THERE

On the morning of May 21, 1927, Charles Lindbergh took to the air in a single-motored plane to complete the first non-stop transatlantic flight in history. This moment climaxed thousands of hours of preparation — in navigation, in design, and in the selection of equipment for the plane on which so much depended. For the critical hose connections on the Spirit of St. Louis, Ideal hose clamps were the carefully considered choice.

To this day no other clamp manufacturer has approached Ideal's record for performance under critical conditions—on, above or below the ground, or at sea. Today, Ideal hose clamps are the choice on barrier-breaking jets, on the punishing Indianapolis Speedway, on atom-powered subs, and in the critical applications of underground plastic pipe. This is performance — the final test of quality.

Ask your jobber about the "performance-proved" line —





It takes a little nickel

...to save a lot of dollars



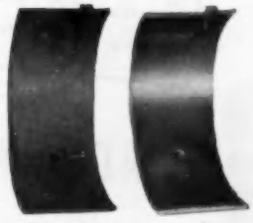


NICKEL ELECTROPLATE BARRIER

You wouldn't think a tiny strip of nickel, only .00006 of an inch thick, together with the electroplated .001" Micro layer of babbitt, would give you a 3½-to-1 mileage advantage over conventional babbitt bearings in the engines you service . . . but it's true!



THOMPSON ENGINE BEARINGS *for replacement use include: Conventional babbitt; Micro babbitt; copper-lead; and our famous "CL-77" heavy-duty bearing with the Micro overlay.*



Thompson "CL-77" heavy-duty bearing. *Ordinary bearing.*

It's this thin nickel barrier (an exclusive patented feature) that prevents diffusion of the babbitt overplating into the copper-lead base metal in the Thompson "CL-77" heavy-duty bearing, that's piling up amazing mileage records.

That means *service* dollars saved by the owner of the engine . . . and *profit* dollars made by the man who installs Thompson "CL-77" Heavy-Duty Bearings.

In the world of engines . . . car, truck, bus and tractor . . . Thompson is the leader, not only in the Original Equipment field, but also in "Original Equipment" replacement parts.

Your Thompson Jobber's catalogs contain hundreds of "CL-77" bearing listings. Get "CL-77" Bearings from your Jobber for the heavy-duty engines you service.

See your Thompson Products Jobber

THOMPSON SERVICE SALES
2209 Ashland Road, Cleveland 3, Ohio



WALKER LEADS IN JACKS

WALKER MANUFACTURING CO. OF WISCONSIN • RACINE, WISCONSIN

WALKER SERIES 900

PORTABLE HYDRAULIC TOOL BOX JACKS



PRICES BEGIN AT ONLY $7.80

WALKER "SERIES 900"—8 MODELS TO CHOOSE FROM		
No.	*Ton Capacity*	*Price*
906	1½	$ 7.80
925	3	13.95
930	5	16.00
935	8	19.25
945	12	25.60
953	20	38.50
960	30	70.75
965	50	112.90

There's a Walker "Series 900" Portable Hydraulic Jack for Every Type of Truck.

All prices Suggested Dealer Net.

JACKS • EXHAUST SILENCERS • OIL FILTERS

GET IT FROM YOUR JOBBER

GET THESE PLUS-PERFORMANCE "900" FEATURES
See your Walker Jobber!



Armor-Designed "Projectile" Tank to withstand shock.



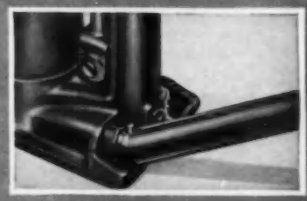
"Self-Locking" Extension Screw with Non-Breakable Integral Cap



"Pendulum Balance" for easy, fast positioning.



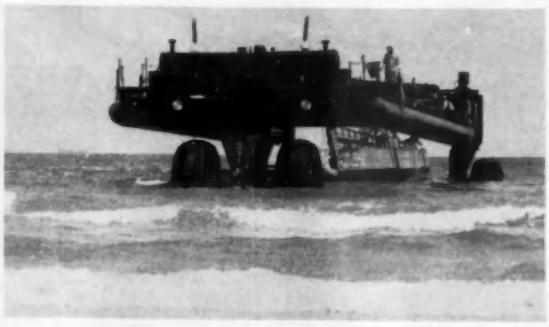
"Solid-End" Lifting Ram resists eccentric loads



"Micro-Accurate" Release for safe lowering

Kangaroo for Landing Craft

This machine, designed and built by R. G. LeTourneau, Inc., is an intricate arrangement of hoists, wheels, and engineered power which enables it to straddle a 67-ton vessel and literally lift it from the water. Like a huge kangaroo with its young tucked safely under its midriff, the machine can "right" a capsized or stranded craft, transport it to deeper water, or carry it bodily out of the water and up onto the shore. Secret behind the retriever's workability is a separate, totally waterproofed electric motor and gear reduction built into each individual wheel. The self-propelled retriever, capable of recovering stranded or capsized vessels in water up to eight feet in depth, is 75 ft long, 38 ft wide, 22 ft high. Even fully loaded, it can climb a 20 per cent grade.

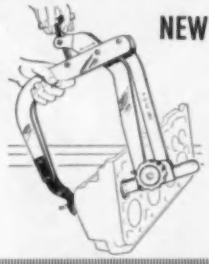


NEW K-D HUSTLERS for Your Toolbox

..... They make hard jobs easy .....

K-D 382 VALVE SPRING COMPRESSOR

NEW

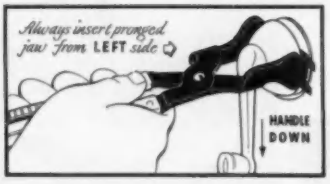


Services L-head, valve-in-head engines, old or new. Specially developed for working in close quarters. With the adjustable Plunger Bar and Operating Hand Wheel, a wide range of adjustments is possible to service valves of all lengths. Rigid bar steel construction, strongly braced. K-D No. 32 Offset and No. 35 Straight Jaws furnished.

NEWS FLASH! K-D 382 best all-around tool for servicing valves on all 1956 Chrysler-built V-8's.

NEW

K-D 435 DOOR HANDLE REMOVER—for all Chrysler-built.

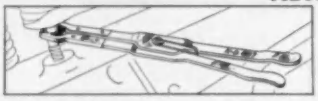




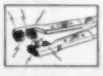
Safely, quickly removes inside door handles using a spring clip like this. . . . Tool specially designed to release this clip from a groove in door handle shaft so handle can be removed. For all Chrysler-built since 1955. All steel with correctly tempered jaws. Get one—save a headache.

K-D 607 VALVE KEEPER INSERTER

NEW



MAGNETIC! A fast, convenient Inserter for use with the one size split keeper used in most later model L-heads (Ford, Chrysler, etc.) Thin, streamlined construction. Keepers aligned quickly, automatically on jaw magnets. Self supporting on valve.



UNIVERSAL POINT ALIGNER



K-D 111. For ALL types of points in ALL types of distributors, working right IN the distributor. Carefully machined.

NEW

K-D TOOLS

K-D MFG. CO.
Lancaster, Pa.

FREE CATALOG. OVER 150 K-D Tools.

"Do it quick—do it easy—today, tomorrow, next year. Do it with K-D Tools." At Jobbers everywhere.

Maintenance Films

Continued from Page 178

38. Univ. of Tennessee
Div. of Univ. Extension
Univ. Film Library
Knoxville, Tenn.

39. The Texas Co.
Public Relations Dept.
135 East 42nd St.
New York 17, N. Y.

40. Thermoid Co.
Automotive Replacement Parts Div.
Trenton, N. J.

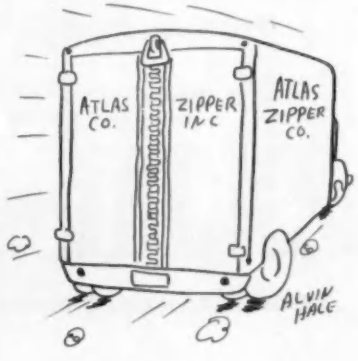
41. U. S. Bureau of Mines
Graphic Services Station
4800 Forbes St.
Pittsburgh 13, Pa.

42. Utica Drop Forge & Tool Co.
Utica 4, N. Y.

43. Commonwealth of Virginia
State Board of Education
Film Production Service
Richmond 16, Va.

44. Westinghouse Electric Corp.
Film Div.
Box 868, 511 Wood St.
Pittsburgh 30, Pa.

45. The White Motor Co.
Sales Promotion Dept.
842 East 79th St.
Cleveland 1, Ohio.





IN THE 30 SECONDS IT TAKES TO READ THIS,

another truck engine is being filled with PUROL H.D.

HERE'S WHY:

- Purol Heavy Duty motor oil has remarkable detergent properties that keep engines clean. Lowers fuel consumption. Minimizes repairs.
- Purol H.D. has a high viscosity index. Means less oil consumption, greater protection in heat or cold.
- Purol H.D. has special additives that fight rust, corrosion, and foaming. Keeps units on the road.
- Purol H.D. is made from superior oil stocks that won't break down under tough fleet use. Stays on the job.

The next time you change oil in your trucks, try Purol H.D. and see for yourself the difference it makes.





Be sure with Pure

Purol H.D. is available at all PureTruck Stations and through your local Pure Oil representative.

Selected Manuals for Fleet Maintenance

THIS selected list of maintenance literature contains valuable information for those responsible for the repair and service of equipment.

The following pages contain brief descriptions of manuals, folders, charts and booklets on a variety of specific subjects. Many are provided free of charge. Some of the more complete publications are available at a nominal charge.

Addresses of the manufacturers offering them are given here for your convenience in ordering.

Effort has been made to present a broad enough listing so you'll be able to choose manuals to fit your fleet operation. A word of warning, however. In a few cases, old stand-bys are in limited supply or no longer available. You may have to borrow them from a neighboring fleetman.

The list is arranged under the following headings to speed your finding specific information quickly:

1. Axles, Springs and Wheels.
2. Brakes.
3. Cooling Systems.
4. Clutches and Transmissions.
5. Electrical and Ignition Systems.
6. Engines.
7. Fuels and Lubricants.
8. Tires.
9. Tubeless Tires.
10. Tools and Procedures.
11. Welding Techniques.

Axles, Springs and Wheels

Eaton Handbooks—Various bulletins describing service and maintenance procedure on Eaton two-speed axles, two-speed axles with electric shift controls, Model No. 36M tandem-drive axles, electric shift for Timken two-speed axles. Requests should indicate information desired and model number of unit. Free—Sales Promotion Manager, Axle Division, Eaton Mfg. Co., Cleveland 10, Ohio.

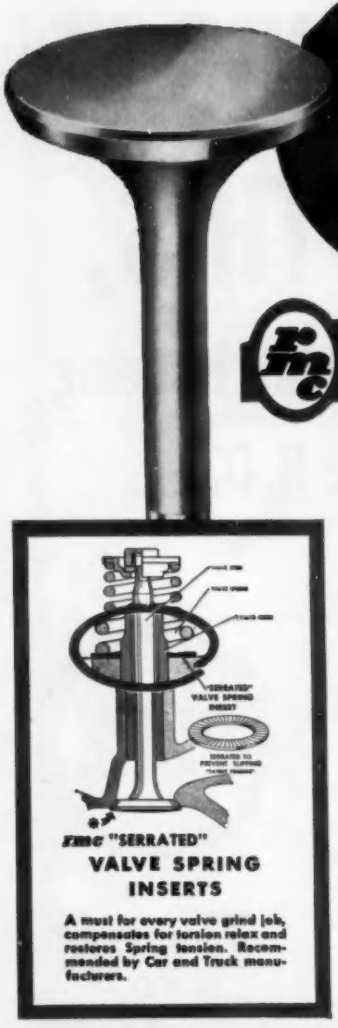
Timken-Detroit Field Service Bulletins—Various bulletins describing assembly, maintenance, lubrication, brake service, etc., on various Timken-Detroit axles. Requests should include information desired and model number of unit. Free—Technical Publications Manager, Service Engineering Dept., Timken-Detroit Axle Division, Rockwell Spring and Axle Co., Detroit 32, Mich.

Timken-Detroit Wall Chart—Illustrates and describes adjustment and assembly of Timken-Detroit hypoid helical two-speed, double-reduction drive units. Free—address as above.

Tips on Spring Service and Inspection—29 pages—Covers leaf spring technical data briefly, including construction, lubrication, adjustment and maintenance. Each 25¢—Leaf Spring Institute, 2100 Keith Bldg., Cleveland 15, Ohio.

Trucktor General Air Spring Tandem Service Instructions, No. 4—5 pages—Covers maintenance, operation and lubrication of the Trucktor General Air Spring tandem axle. Free—Sales Dept., The Trucktor Corp., 1137 Route 22, Mountainside, N. J.

(TURN TO PAGE 186, PLEASE)



Engineered & Built to Take the High Compression Gaff!

rmc "Original Engine Engineered" VALVES

Today's Shorter Strokes, larger bores, and higher compressions are rough on valves—tend to shorten valve life.

rmc, two piecevalves featuring Austenitic steel heads, stellite faces, and heat bands, where required, are engineered and built to stand the gaff—giving better performance and greater mileage.

Specify rmc Parts



Valve guides and seats



Valve Springs and locks

rmc "SERRATED" VALVE SPRING INSERTS

A must for every valve grind job, compensates for torsion relax and restores Spring tension. Recommended by Car and Truck manufacturers.

Sold by leading Automotive Parts Jobbers
WAREHOUSED IN ALL PRINCIPAL CITIES

RICH MANUFACTURING
BATTLE CREEK
MICH., U.S.A.

BASIC VALVE MANUFACTURER
FOR ORIGINAL EQUIPMENT
SINCE 1908



CLEANING a Matlack trailer, often a full day's job, takes only an hour because dirt washes away with ease from smooth surfaces of Alcoa Aluminum.



103 *tank trailers* of Alcoa Aluminum *boost profits four ways for Matlack*

Freedom from contamination . . . reduced maintenance cost . . . improved safety . . . greater payloads! With Alcoa® Aluminum providing these four big aids to higher profits, no wonder E. Brooke Matlack, Inc., chose this light, strong metal for 103 transports just added to its giant fleet.

The builders, Butler Mfg. Co., showed Matlack how weight savings could add additional payload every trip. They pointed to tough Alcoa welding alloys that helped aluminum transports pass the 200,000-mile mark without repairs. They cited smooth surfaces to make cleaning faster and easier, nonsparking characteristics as an aid to safety, nontoxic properties that safeguard sensitive liquids.

You can enjoy the same advantages that made Alcoa Aluminum first choice for Matlack.

Write today for Alcoa's new booklet, *The Road to Payload Profits.* Address: ALUMINUM COMPANY OF AMERICA, 1876-D Alcoa Building, Pittsburgh 19, Pennsylvania.

WE CHOSE ALCOA ALUMINUM MILL PRODUCTS
ALUMINUM COMPANY OF AMERICA
ALCOA

Your Guide to the Best in Aluminum Value

THE ALCOA HOUR
Television's Finest Live Drama
Alternate Sunday Evenings

Maintenance Manuals

Continued from Page 184

Truck Rim Identification and Operating Manual, 39 pages—Illustrates and describes various types of truck wheel rims and dual wheel construction. Includes tire mounting and demounting instructions with a special section on rim accidents. Free—from members of the National Wheel and Rim Assn. For name of closest member, write the association at 208 West St. Clair Ave., Cleveland 13, Ohio.

Wheel and Steering Alinement Technical Manual—Manual covering complete data on wheel and steering alinement. Each $2.00—John Bean Division, Food Machinery & Chemical Corp., 1305 Cedar St., Lansing 4, Mich.

Bean Wheel Alinement Specifications—Charts giving wheel alinement specifications. Include model number of vehicle when requesting information. Free—address as above.

Principles of Wheel Alinement—53 pages—Thorough coverage with many diagrams of wheel alinement, including caster, camber, toe-in, king pin inclination, steering troubles, wheel balance, rear wheel and drag link alinement. Each $2.00—Bear Mfg. Co., Rock Island, Ill.

The Automotive Chassis—616 pages—By P. M. Heldt, this book covers the frame, axles, suspension and steering, including both passenger car and truck. Each $9.00—Chilton Co., Book Division, 56th and Chestnut Sts., Philadelphia 39, Pa.

Brakes

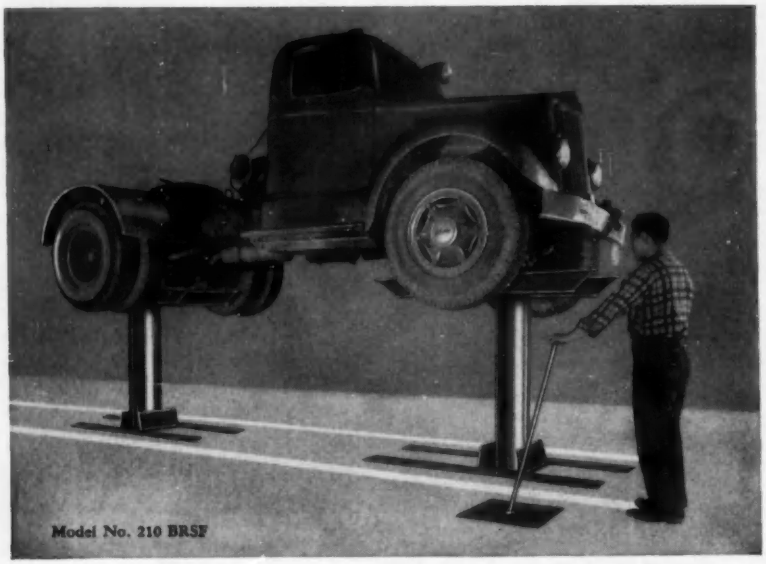
Brake Adjusting Chart—Wall chart on brake adjustment. Free—American Brake Shoe Co., American Brakeblok Division, 4600 Merritt Ave., Detroit 9, Mich.

Quick Reference Brake Service Guide—Handy manual on brake servicing. Free—address as above.

Bendix-Westinghouse Brake Maintenance Manual — 224 pages — Complete description of Bendix-Westinghouse Air Brake System, including assembly, service and maintenance procedures. Each $1.00—Advertising Dept., Bendix-Westinghouse Automotive Air Brake Co., Elyria, Ohio.

Fundamentals of Brakes, No. 5059—Folder describing basic physical forces in braking of vehicles, includ-

(TURN TO PAGE 190, PLEASE)



CUT COST AND TIME OF BUS AND TRUCK REPAIRS AND SERVICE WITH JOYCE FULL HYDRAULIC BUS AND TRUCK LIFTS!

The use of Joyce Bus and Truck Lifts in your service department will result in extra profits, *two ways* . . . fewer man-hours on each job and less down-time for each vehicle. These savings are possible because all Joyce Lifts speed maintenance jobs by giving your mechanics maximum accessibility to every service point of the vehicle under-carriage . . . from a comfortable standing position on a smooth floor.

JOYCE BUILDS A BUS AND TRUCK LIFT AND COMBINATION AUTO AND TRUCK LIFT FOR EVERY NEED. In Joyce's complete line, you will find continuous rail, split rail, above floor, and floor-flush types . . . single and two post lifts with air-oil or electric-hydraulic operation. And you owe it to yourself to look into these great plus values . . . Joyce, floor-flush, Joycestick Control (illustrated above) that accurately controls the operation of Joyce lifts with a single handle . . . and Magne-Guard Low-Oil-Control, a great Joyce safety feature.

write today for complete line catalog No. 200 B.T.L.!

JOYCE LIFTS

IN CANADA: Midland Foundry & Machine Co., Ltd., Midland, Ontario.

THE JOYCE-CRIDLAND COMPANY

Designers and Builders of Lifting Equipment Since 1873

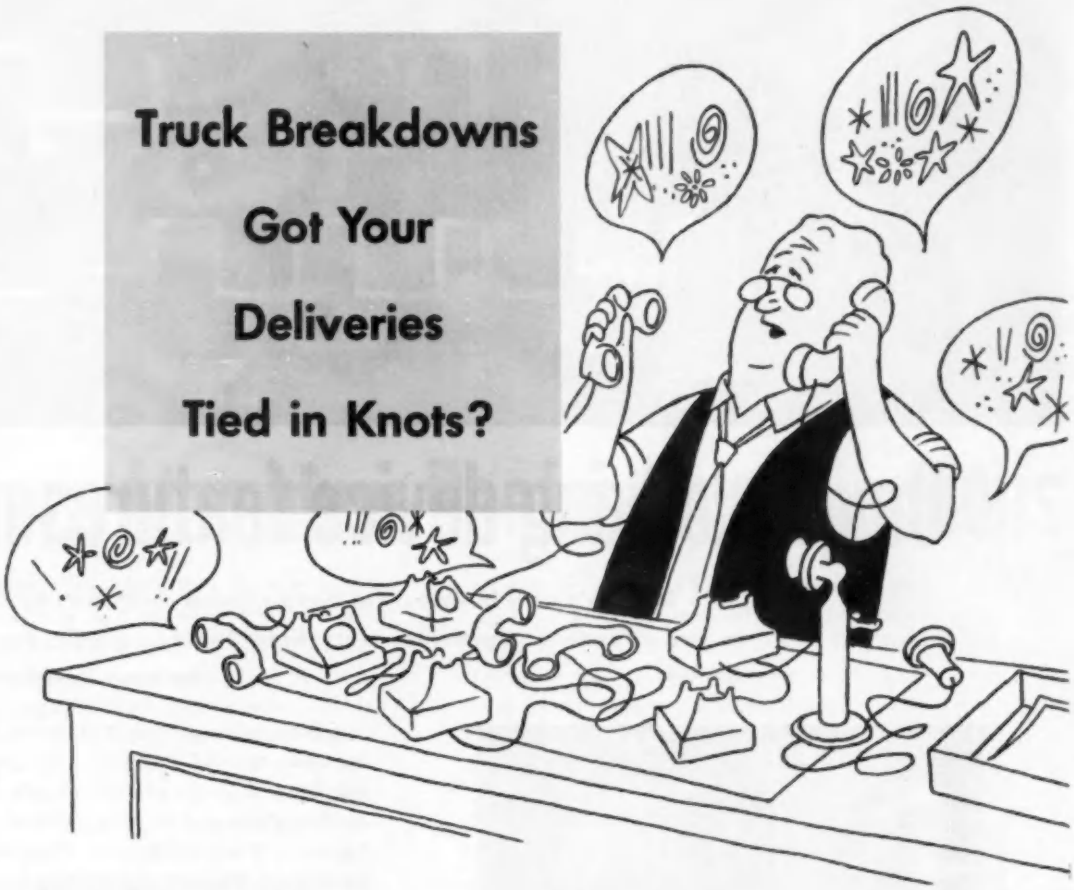
DAYTON 3, OHIO, U.S.A.

Two-Man Line Body



Body Division, York-Hoover Corp. has announced its new Model No. 5000 WDF body unit—a two-man line body. Standard equipment includes safety tread steel floor, side cabinets with bins and material drawers, through-type saw box, tunnels for carrying shovels, digging bars, etc., flush type handles and key lock on exterior cabinet doors, telescoping sliding roof, material rail on each side of body interior. Optional equipment includes two-gallon thermos-type water cask, towing hook, hydraulic brake booster to give positive control when digging or setting poles, manual electric trailer brake control, vise bracket, collapsible power reel and holder, derrick and allied parts, pike pole brackets, power winch and cable.

Truck Breakdowns Got Your Deliveries Tied in Knots?



Call **HERTZ** . . . For That Extra Truck!

When one of your trucks breaks down, deliveries needn't be delayed. A modern Hertz rental truck is as close as your phone.

It's at times like this—rush orders, peak loads, emergencies of any kind—that smart businessmen call Hertz Truck Rental. In minutes, they have a clean, new truck right there to keep shipments moving.

That's right, just minutes. There's no red tape when you rent a truck from Hertz. You order just the truck you want . . . modern Fords or other sturdy makes in ½-ton, 1-ton and 2-ton capacities in pick-up, panel, van and stake bodies. You send over a driver, with proper license and identification, and the truck is yours.

Rates are low, and you pay only for the time you use it. No more trucks sitting around idle between peak loads. What's more, Hertz supplies all gasoline, oil and proper insurance . . . at no extra charge.

In Tampa, Florida, for instance, a 2 ton van truck costs only $6.00 for 6 hours, plus 9 cents a mile, everything included but the driver. That's only $8.25 for a 25 mile trip. Real low-cost trucking! Rates are even lower by the week, and vary slightly in different cities.

You may need one truck, you may need ten. You may need one for an hour or a week. Hertz has them . . . throughout the United States and Canada. And Hertz has them right away.

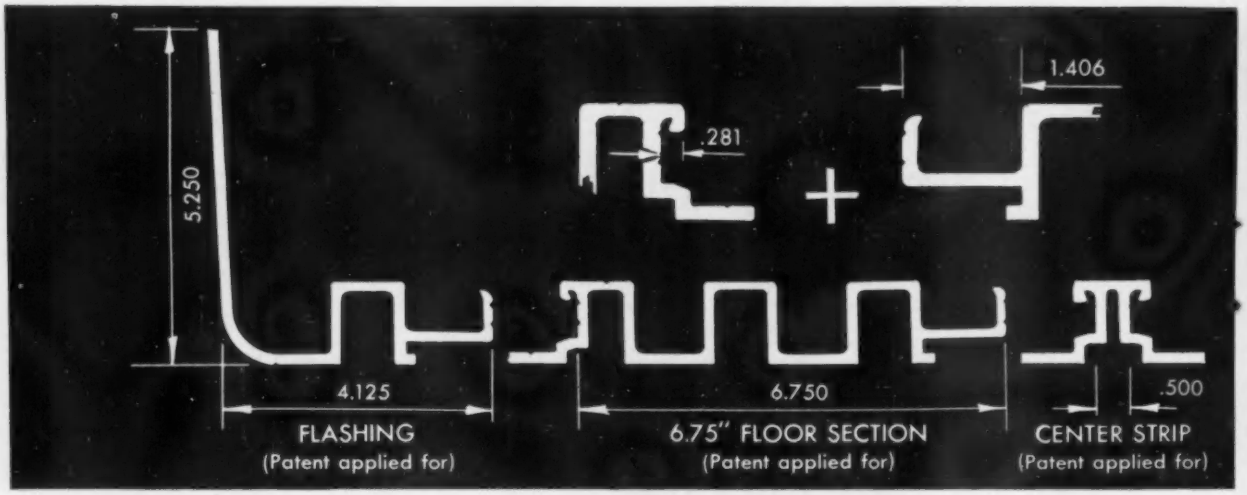
Want to know more? Call the Hertz office nearest you. (Look under "H" in the phone book.) Or, write, wire or call Hertz Truck Rental System, Department S46, 218 South Wabash Avenue, Chicago 4, Illinois; phone: WEbster 9-5165.



Most experienced...by far

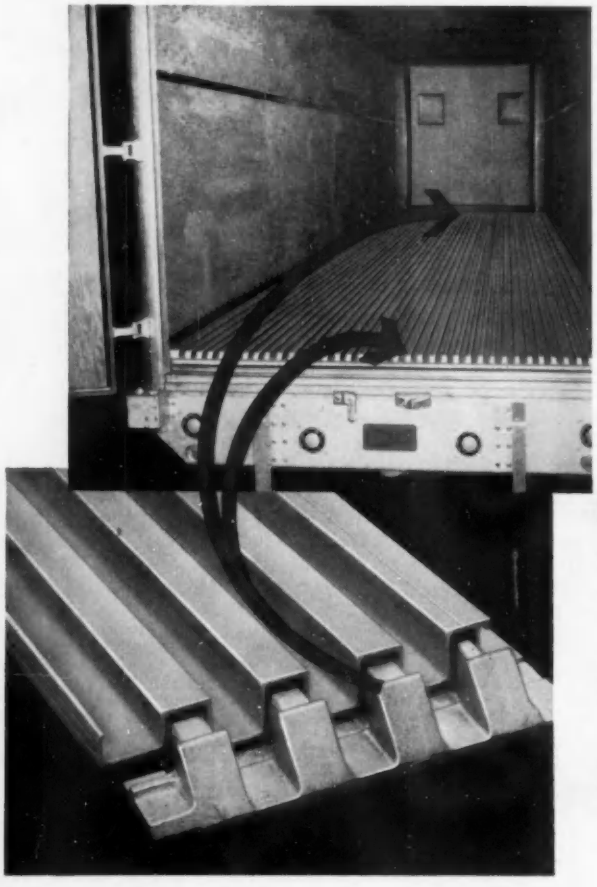
HERTZ

Truck rental



Unique locking device* features new

Revere's new interlocking design forms mechanically tight lock in *two* directions... provides watertight floors... speeds assembly... reduces installation costs



It's easy to figure out why more and more economy-minded builders and operators of refrigerated trucks and trailers are turning to modern aluminum flooring. Greater payload is possible. More refrigerated space is available. Floor stays cleaner, more sanitary. Maintenance costs are lower. Repair is easier.

And now Revere engineers have developed new Aluminum Reefer Floor Sections, especially designed to provide watertight floors plus new ease and economy of installation.

These extruded sections—9" Floor, 6¾" Floor, Flashing and Center Strip—will make up a floor for almost any width truck or trailer body. They can be bought as a unit, singly or in any combination.

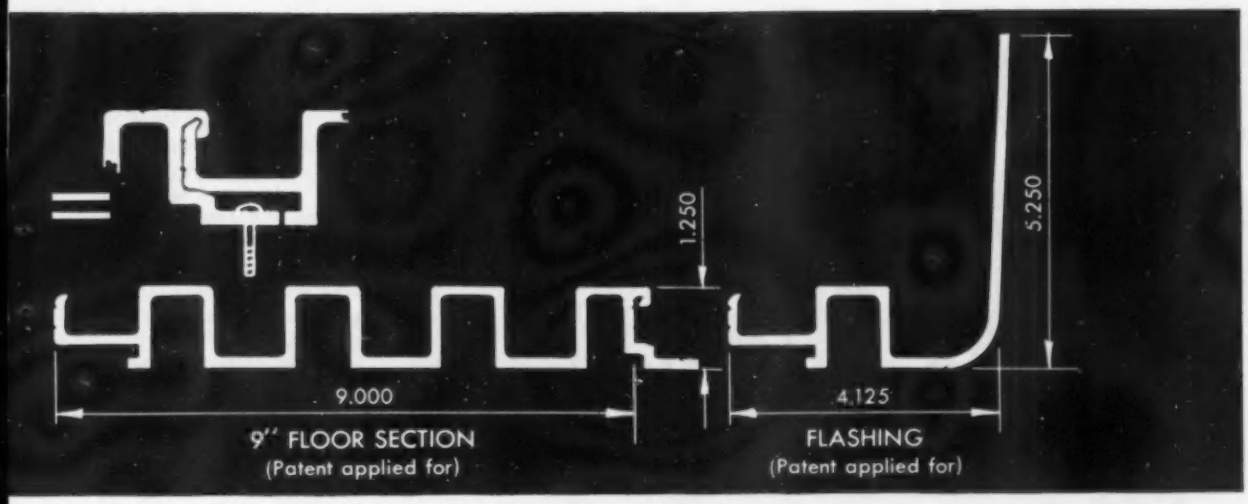
Watertight MULTI END-PLUGS save hours of installation time

Multi end-plugs are available in both left and right hand units for use in plugging both back and front ends of floor boards.

Made full width of 9" and 6¾" Revere Aluminum Reefer Floor Sections, these rugged, heavy-duty aluminum end-plug castings form a continuous assembly across entire width of floor. Multi-plug construction cuts installation time to bare minimum.

Properly installed, these castings provide a watertight seal . . . keep out dirt and other foreign matter . . . act as a "bumper" against materials handling equipment, protect floor-board ends from damage. And they look neat.

*Pat. Applied For



Revere Aluminum Reefer Floor Sections

WATERTIGHT CONSTRUCTION. In the drawings above, you will see why, with proper installation and use of mastic, floors made of new Revere Aluminum Reefer Floor Sections are watertight. Notice where the unique locking arrangement is located . . . how the extrusions interlock in *two* directions, providing greater strength. Notice, too, that in Revere's design there are no boltholes through which water can leak. (And since bolts are hidden they can't create unsanitary areas or interfere with loading and unloading.)

EASY-TO-INSTALL AND DISASSEMBLE. New Revere Aluminum Reefer Floor Sections are easy to lock and fasten in place, or take apart and reassemble. Revere's locking arrangement and design allow you to bolt floor sections to subframe without going through floor from inside of body. Bolts do *not* require countersinking. Saves time, saves effort, saves money.

A special feature is Revere's unique center locking strip. It is installed on centerline of body and sections interlocked with it in both directions toward the sides. No need to remove whole floor if accidents cause damage. You can take up only that half of floor upon which repairs must be made.

CLEAN, SANITARY. New Revere Aluminum Reefer Floor Sections allow for air circulation and drainage . . . help keep perishables from spoiling. Floor can't rust or absorb moisture. And you can wash it down in minutes.

SAFE, STRONG, LIGHT. Lightweight Revere Aluminum Reefer Floor Sections have good resistance to denting and abrasion. They won't rot or splinter. And the weight they save may be converted into greater payload.

Revere carries limited stocks of floor sections in 32′, 34′ and 35′ lengths.

Write today for FREE SAMPLE of Revere Aluminum Reefer Floor Sections!

Revere will gladly send you a free sample of the new Reefer Floor Sections. See for yourself how unique interlock provides watertight floor, easy installation. Write today on company letterhead to address below.

Want more information on these and additional body shapes—flooring, structural or others? Get the full story from your body builder or nearest Revere Sales Office. Just call or write.

Dry Freight Floors Also Available!

Special locking arrangement and design of new Revere Aluminum Dry Freight Floor Sections provides watertight floor . . . stronger load-bearing surface . . . important economies in installation. For full story, get in touch with your body builder or nearest Revere Sales Office.

COPPER ★ BRASS ★ 18 01 ★ REVERE ★ ALUMINUM

REVERE COPPER AND BRASS INCORPORATED

Founded by Paul Revere in 1801

230 Park Avenue, New York 17, N.Y. • *Sales Offices in Principal Cities*

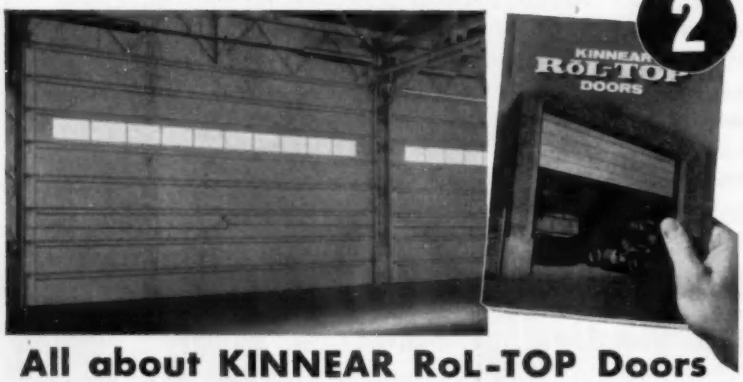
Two New Catalogs Answer Your Needs For Door Efficiency

Here's your up-to-the-minute information on doors that cut operating costs, look better *last longer.*



KINNEAR Steel Rolling Doors

— with the coiling upward action of interlocking steel slats *(originated by Kinnear)* — are illustrated and described here in every detail. Also complete data on Kinnear Steel Rolling Fire Doors *(labeled by Underwriters' Laboratories, Inc.)* and the upward-acting Kinnear Steel Rolling Grilles, the attractive steel-bar-and-link protection that admits light, air and vision. Full details on Kinnear Motor Operators, too!



All about KINNEAR RoL-TOP Doors

— the better-built, sectional-type doors of either wood or all-steel construction. Available with provision for glass in any number of panels. Full range of sizes for residential, commercial and industrial needs. Also details on motor operators and controls!

Send today for these handy FREE reference books on space-saving DOORS!

Saving Ways in Doorways
KINNEAR
ROLLING DOORS

The KINNEAR Mfg. Co.
Factories:
2100-20 Fields Ave., Columbus 16, Ohio
1742 Yosemite Ave., San Francisco 24, Calif.
Offices and Agents in All Principal Cities

Maintenance Manuals

Continued from Page 186

ing coefficient of friction, transfer of motion energy to heat energy, effect of horsepower, weight and speed on braking, stopping distances, leverage and deceleration. Free — address as above.

Delco Brake Service Manual—Covers brake service, maintenance and care of Delco brakes. Free—Merchandising Manager, Delco Brakes, United Motors Service, Division of General Motors Corp., General Motors Bldg., Detroit 2, Mich.

Engineering Brake Adjustment Chart—Chart on making brake adjustments. Free—Gatke Corp., 228 N. LaSalle St., Chicago 1, Ill.

Grey-Rock Brake Service Manual—56 pages—Description of parts and operation of major brake systems and makes. Includes assembly, service and maintenance procedures for brakes and related components. Each $2.50 —Advertising Dept., Grey Rock Division, Raybestos-Manhatten, Inc., Manheim, Pa.

More for Your Dollar in Longer Brake Block and Drum Life—Brief manual listing nine ways to extend brake service life. Free—Grizzly Mfg. Division, 700 W. Caroline St., Paulding, Ohio.

Johns-Manville Brake Reliner's Manual—90 pages—Description of parts and operation of major brake systems and makes designed for passenger car and light truck fleets. Includes assembly, service and maintenance procedures for brakes and related components. Free—Friction Materials Dept., Industrial Products Division, Johns-Manville Sales Corp., 1617 Pennsylvania Blvd., Philadelphia 3, Pa.

Johns-Manville Fleet Reliner's Manual—80 pages—Training manual for operation, inspection and maintenance of bus, truck and trailer brake and brake control systems especially designed for fleet use. Free—address as above.

Raybestos Brake Service Guide for Fleets—43 pages—Comprehensive, well illustrated manual on brake service on all type brakes. Has a special section on air system maintenance. Free—Advertising Dept., Raybestos Division, Raybestos-Manhatten, Inc., Bridgeport 2, Conn.

Modern Brakes—27 pages—Description of parts and operation of major brake systems and makes. Includes

(TURN TO PAGE 192, PLEASE)

Best for service needs!



Model E12.9A—
12 ton axle jack.



Increase your shop safety and efficiency with dependable, trouble-free Hein-Werner Hydraulic Jacks. You can't buy better. Check for yourself these worthwhile Hein-Werner features:

- **One piece hardened extension screw.**
- **Heavy malleable iron top nut.**
- **Pressure tested castings.**
- **Center-balanced malleable handle socket.**
- **Exclusive "Heinite" piston.**
- **Carrying and positioning handles.**
- **Positive, direct release valve.**
- **Convenient two-piece pumping handle.**
- **Factory tested at 1½ times rated capacity.**
- **Large sled-type base of pressure tested malleable iron.**

HEIN-WERNER HYDRAULIC JACKS

Built for fast, easy, safe-handling of all heavy-duty jobs!

Compare Hein-Werner Hydraulic Jacks feature-for-feature with any other jack on the market. You will quickly see why Hein-Werner is the popular choice of over three million mechanics and truck drivers. Ask your Hein-Werner jobber for all the facts, or write us.

For Your Protection all Factory Approved Service Stations now display this emblem.

FRANCHISED SERVICE DEPOT Hein-Werner

Hein-Werner manufactures and sells more HYDRAULIC JACKS than any other company in the world today!

HEIN-WERNER CORPORATION, WAUKESHA, WISCONSIN

The complete Hein-Werner line includes: Under-Axle Jacks of 1½ to 100 ton capacity . . . "Bumper-Lift" Jacks for passenger cars . . . Service Jacks for shop use . . . Adjustable Car Stands . . . Twin Saddle Service Jacks . . . "Push and Pull" and "Pushmaster" Jacks for body, fender, and frame repair work.

Maintenance Manuals

Continued from Page 190

service, maintenance and trouble shooting data for brakes and related components. Free—The Russell Mfg. Co., Middletown, Conn.

Thermoid Brake Service Reference Book—Description of parts and operation of major brake systems and makes. Includes assembly, service and maintenance procedures for brakes and related components. Free—Automotive Replacement Division, Thermoid Co., Trenton, N. J.

Wagner Hydraulic Brake Service Guide, No. HU-411—8 pages—Presents an outline for use in hydraulic brake service and repair, including a trouble shooting guide. Free—Sales Promotion Manager, Wagner Electric Corp., Automotive Division, 6400 Plymouth Ave., St. Louis 14, Mo.

Warner Electric Brake Service Manual, No. 547F—64 pages—Complete description of operation, maintenance, installation of Warner electric brake system. Fully illustrated to aid in assembly and trouble shooting. Each 20¢—Warner Electric Brake and Clutch Co., Beloit, Wis.



Cooling Systems

Give the Cooling System a Chance, Service Bulletin, Vol. 2, No. 19—12 pages—Data on need for cooling system maintenance and troubles to look for. Emphasizing diesel engines, the bulletin is also valuable for other type engines. Free—Cummins Engine Co., 5th and Wilson Sts., Columbus, Ohio.

Serviceman's Manual on the Automotive Cooling System—41 pages—Covers cooling system operation, selection of coolant, chemical and mechemical cleaning of the cooling system, preparation for summer or winter driving, and a large trouble-shooting guide. Each $2.00—Advertising Dept., E. I. du Pont de Nemours & Co., Inc., 2494 Nemours Bldg., Wilmington 98, Del.

What Every Service Man Should Know About Automotive Cooling Systems—40 pages—Manual on complete servicing of automotive cooling systems. Free—Automotive Engineering Dept., National Carbon Co., Division of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.

Automotive Cooling System, No. AFP-1368-A—Wall chart covers automotive cooling system with complete schematic diagrams. Free—address as above.

Clutches and Transmissions

The Clutch, How to Service It—50 pages—Manual on clutch maintenance, including clutch operation, construction, how to do a clutch job, pedal adjustment, how to locate and correct clutch troubles. Each 50¢—Sales Service Dept., Accurate Parts Mfg. Co., 1600 S. Ashland Ave., Chicago 8, Ill., or local jobber.

Service Manuals—Manual on servicing DP, ML, TC clutches. Free—Advertising Dept., Lipe-Rollway Corp., 806 Emerson Ave., Syracuse 1, N. Y.

Clutch Troubles and Their Cures—11 pages—Trouble-shooting guide for correction of clutch troubles. Includes assembly and inspection tips. Free—Russell Mfg. Co., East Main St., Middletown, Conn.

Spicer Brown Lipe Clutches, Gear Boxes, No. 230—Specification catalog with an 8-page section on clutch maintenance, trouble-shooting, assembly and disassembly. Free—Spicer Mfg. Division, Dana Corp., Toledo 1, Ohio.

Service Manuals, Fuller Transmissions—Available for Model Nos. 5A33,

(TURN TO PAGE 194, PLEASE)

Your Profits UP FRONT Depend on the Mechanics OUT BACK



The speed and quality of your mechanics' work depends on the tools they use. Here's where your *Snap-on** man can help make the service shop contribute a bigger share of your total income.

FIRST, *Snap-on* furnishes a complete line of *modern* hand tools — including the very latest in automatic transmission adjusting tools, carburetor tools, special cylinder head wrenches — tools your mechanics must have to service today's complicated cars and trucks.

SECOND, *Snap-on* provides a full range of shop equipment including valve refacers, valve seat grinders, pullers, wheel alignment and balancing units, hydraulic body repair sets — precision equipment you need to get your share in today's highly competitive market.

THIRD, Service with a capital *S* is a *Snap-on* byword. Because of the *Snap-on* man's regular, frequent calls, mechanics depend on him. Time after time he comes in right when a mechanic needs him most — perhaps for a "special," such as a camshaft, tappet or brake tool; possibly for the "regulars" — wrenches, sockets, screw drivers and the like. Whatever the need, *Snap-on* calls save the mechanics' time — and *your* money.

FOURTH, with *Snap-on's* deferred payment plan, mechanics can earn with their tools while they pay. Shop owners can add profit-building shop equipment with a minimum down payment. Your *Snap-on* man will be glad to furnish details.

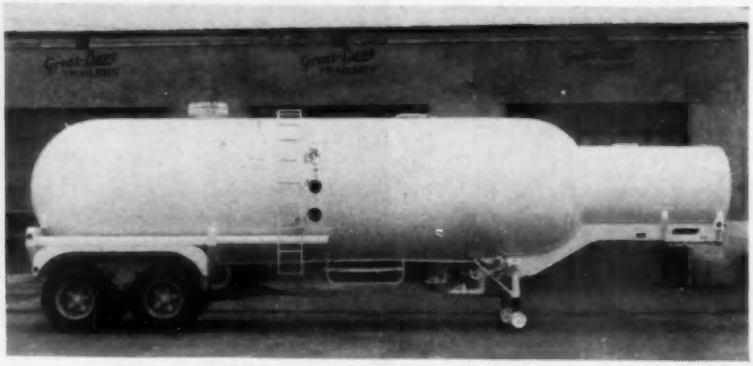


SNAP-ON TOOLS CORPORATION
8026-D 28th Avenue • Kenosha, Wisconsin

*Snap-on is the trademark of Snap-on Tools Corporation.

Pressurized Tank

Great Dane Trailers announces this new 9080 water-gal capacity pressurized tank trailer. It was built of high strength steel alloy and designed to provide a working pressure of 265 psi. Great Dane says it equals or exceeds all ICC and state requirements. It is especially recommended for anhydrous ammonia or LP gas.





Retail Value $40.08

CONTENTS

Coarse Thread Cap Screws
¼ by ¾ to ½ by 2
Fine Thread Cap Screws
¼ by ¾ to ½ by 2
Coarse Thread Nuts
¼ to ½
Fine Thread Nuts
¼ to ½

Brite Plated Hex Head Cap Screws
Hex Nuts • Fine and Coarse Threads

908 Brite Plated Lamson 1035 Cap Screws and Nuts . . . ready packed in a self-display partitioned box. Contents clearly listed on the back panel.

Plated Refills available from stock in standard packages.

Available from your jobber, or write the Lamson & Sessions Co. for more information.



The LAMSON & SESSIONS Co

1971 West 85th Street · Cleveland 2, Ohio
PLANTS AT CLEVELAND AND KENT, OHIO · BIRMINGHAM · CHICAGO

The World's Largest Manufacturers of Automotive Fasteners

Maintenance Manuals

Continued from Page 192

5A330, 5B33, 5B330, R45, R96 and R960. Specify model number when ordering. Free—Service Sales, Fuller Mfg. Co., Transmission Division, Kalamazoo, Mich.

Preventive Maintenance Wall Chart for Conventional 5-Speed Transmissions—Developed especially for truck operators, wall chart covers all checks on Fuller's 5-speed unit. Free—address as above.

Automatic Transmissions, Vol. III, Thompson Repair and Tune-Up Manuals—Full description of operation, service and maintenance of automatic transmissions. Each $3.00—Service Division, Thompson Products, Inc., 2209 Ashland Rd., Cleveland 3, Ohio.

Transmission Charts—Wall charts showing component parts of transmission gears for Chevrolet, Ford and Plymouth. Specify make when requesting chart. Free—Republic Gear Co., 2197 Beaufait Ave., Detroit 7, Mich.

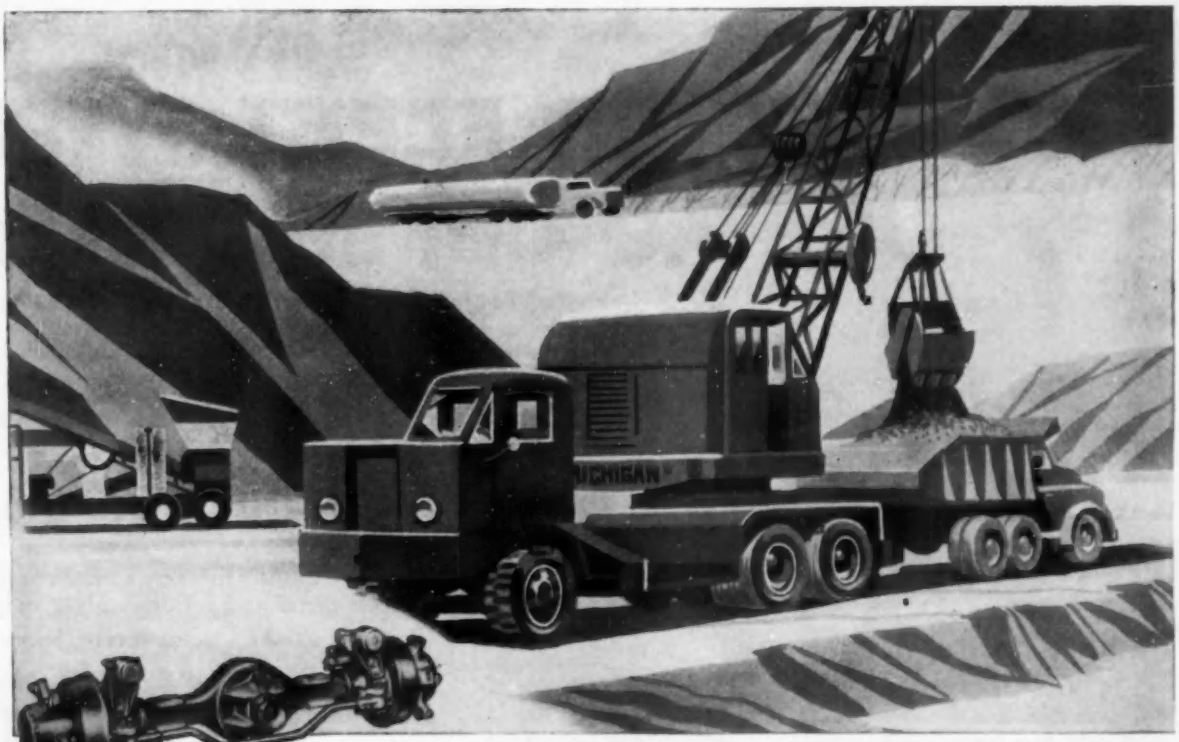
The Hydra-Matic, 1939 Thru 1956—this issue of Lubrication for February 1956 gives a detailed look at the Hydra-Matic transmission including the Twin Hydra-Matic for heavy trucks—Free—The Texas Co., Advertising Division, Sales Dept., 135 East 42nd St., New York 17, N. Y.

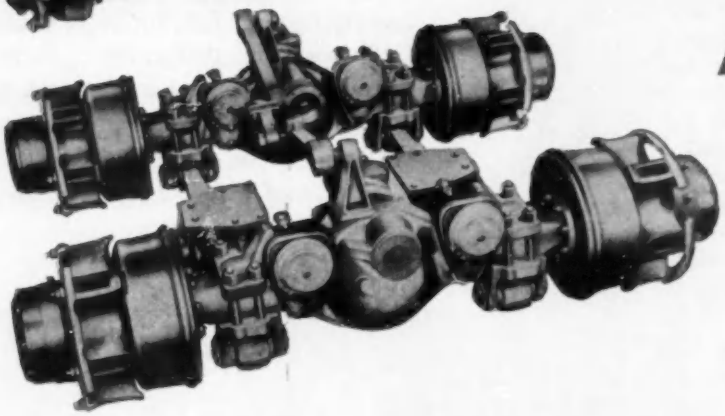
AFBDA Bearing Maintenance Reports—Folders covering various aspects of ball and roller bearing maintenance. When requesting, specify information desired. Free—The Anti-Friction Bearing Distributors Assn., 1900 Euclid Ave., Cleveland 15, Ohio.

Bearing Maintenance Handbook—Describes proper care and maintenance of bearings. Free—Advertising Dept., Hyatt Bearings Division, General Motors Corp., Harrison, N. J.

How to Service Ball Bearings in

(TURN TO PAGE 198, PLEASE)





A rugged answer to *any* tough 6-WHEEL DRIVE problem

Here's a reliable guarantee of a long, useful, profitable life for a hard-working 6 x 6 vehicle—this husky combination:

- **a Clark steering-drive axle for the front**
- **two Clark non-steer drive axles in tandem at the rear**

These are true heavy-duty units—amply strong to carry tremendous loads, ruggedly built to deliver torque to the wheels with dependable efficiency.

Always, wherever you find it, this is a "Quality Specification" . . . CLARK AXLES.

Are you constantly studying how to increase efficiency and decrease costs in that vital area between fly-wheel and tires? Talk to Clark: for in that "vital area" is where Clark can help you; a fact well known to a number of leading equipment manufacturers—to their profit.

CLARK® EQUIPMENT



As a practical Step 1, send for the handy, pocket-size Clark Products book—for a clear idea of why it's **"good business to do business with Clark."**

CLARK EQUIPMENT COMPANY, Buchanan, Michigan

OTHER PRODUCTS OF THE CLARK AUTOMOTIVE DIVISION—
TRANSMISSIONS • AXLE HOUSINGS • TRACTOR UNITS • TORCON TORQUE CONVERTERS • ELECTRIC STEEL CASTINGS • GEARS and FORGINGS • FRONT and REAR AXLES for TRUCKS, BUSES and OFF-HIGHWAY EQUIPMENT.

SPARK YOUR FLEET WITH
USE AC COMMERCIAL

BALANCED HEAT DESIGN GIVES TOP PERFORMANCE!

Top performance is the key to top profits in your trucks! Modern motor trucks with their higher-horsepower, higher-compression engines work best with spark plugs that are specially designed for their use. Here's how the *balanced heat* design of AC Commercial Spark Plugs contributes to a good profit picture in fleet operation. *Balanced heat* means proper heat range for a particular application . . . highway long-haul transport or city stop-and-go delivery. Two exclusive AC features — Conductaseal and the Hot Tip — hold heat at the firing end, where it's most useful! That's *balanced heat* and that means longer plug life, higher plug efficiency!

Standardize on AC Commercial Spark Plugs — as so many fleet operators are doing — discover the difference *balanced heat* can make in your fleet!

1 CONDUCTASEAL

The world's first spark plug seal of fused metal and ceramics gives two pluses to AC Commercial Spark Plugs . . . high conductivity and perfect sealing. High conductivity assures a full, fat spark to burn every drop of fuel for peak engine efficiency and performance. Perfect sealing eliminates harmful blow-by and loss of compression for the long lifetime of the AC Spark Plug. Only the AC exclusive Conductaseal gives you peak performance.

AC SPARK PLUG THE ELECTRONICS



BALANCED HEAT SPARK PLUGS!



2 HOT TIP

The deeply recessed insulator tip is the famous AC exclusive *Hot Tip.* It *heats up fast* to prevent fouling and burns off carbon deposits as soon as they can form, deposits that could cause misfiring, logy engines — costly loss of fuel and power. The *tip cools fast,* too, to prevent power-wasting pre-ignition. AC Commercial Spark Plugs with the exclusive Hot Tip save you much — keep for you the economy and performance originally built into your equipment.

AC SPARK PLUGS

DIVISION OF GENERAL MOTORS

GM GENERAL MOTORS



Watch WIDE WIDE WORLD and BIG TOWN • NBC-TV

Maintenance Manuals

Continued from Page 194

Automotive Equipment—Covers service procedure for ball bearings. Free—Advertising Dept., M-R-C Bearings Service Co., Jamestown, N. Y.

Service Procedure for Ball Bearings, No. ND-A57—12 pages—Fully illustrated procedures on servicing and care of ball bearings. Free—New Departure Division, General Motors Corp., Bristol, Conn.

Bearing Failures and Their Causes—16 pages—Fully illustrated trouble-shooting guide for correction of ball and roller bearing troubles. Free—SKF Industries, Inc., Front St. and Erie Ave., Philadelphia 32, Pa.

Timken Tapered Roller Bearings, Their Care and Maintenance—Procedures for care and maintenance of timken tapered roller bearings. Free—Advertising Dept., The Timken Roller Bearing Co., Canton 6, Ohio.

Anti-Friction Bearings—Manual on care and maintenance of various anti-friction bearings. Free—address as above.

Electrical and Ignition Systems

Automotive Electrical Systems—This first volume of a new series covers electrical fundamentals together with data on construction and operation of the automotive electrical system and its components. Each $1.00—Automotive Electric Assn., 16223 Meyers, Detroit 35, Mich.

Allen Automotive Servicing, Student's Textbook—Textbook on use of Allen testing equipment in diagnosis of automotive troubles. Each $2.40—Allen Electric & Equipment Co., 2101 N. Pitcher St., Kalamazoo, Mich.

Delco-Remy Operation and Maintenance handbook, No. DR-324—Over 200 pages—covers operation and maintenance of Delco-Remy electrical and ignition system. Each $1.50—Technical Literature Section, Delco-Remy Division, General Motors Corp., Anderson, Ind.

Delco - Remy Test Specifications No. DR-324S—Test specifications for Delco-Remy electrical and ignition systems. Each 25¢—address as above.

Delco-Remy Training Charts and Manuals—Eight subjects as follows: Fundamentals of Electricity and Magnetism, Section A, No. DR-5133A, each $3.00; Storage Batteries, Section B, No. DR-5133B, each $2.00; Cranking Motors and Series Parallel Switches, Section C, No. DR-5133C, each $3.00; The Ignition System, Section D, No. DR-5133D, each $4.00; Generators, Section E, No. DR-5133E, each $3.00; Standard Duty Generator Regulators, Section F, No. DR-5133F, each $5.00; Heavy Duty Generator Regulators, Section G, No. DR-5133G, each $5.00; 12-Volt Electrical Equipment for Passenger Cars, No. DR-5213, each $6.50. Address as above.

Maintenance and Operation Manual, No. S-24C—178 pages—Covers starting, charging, ignition, horn, windshield wiper, instrument and lighting circuits. Fully illustrated, it includes trouble-shooting data and information on 12-volt systems. Each $1.50—Parts and Service Division, Electric Auto-Lite Co., Toledo 1, Ohio.

Specification Book, No. S-24CA—Complete test specifications for Auto-Lite electrical and ignition systems. Each 50¢—address as above.

Servicing Auto-Lite Generator Regulators, No. SD-123—62 pages—Describes and illustrates service, operation and maintenance of Auto-Lite generator regulators. Each 25¢—address as above.

(TURN TO PAGE 200, PLEASE)

POWER TAKE-OFFS
UNIVERSAL JOINTS

FOR ALL TYPES OF TRUCK EQUIPMENT

PROMPT SERVICE

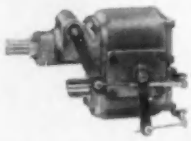


Hydraulic Pump PTO's. Models for all applications.

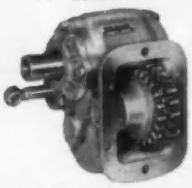
ALL TYPES of high quality units available for immediate shipment to distributors



PTO—"P" Series. Single gear, single speed. Spur or helical gear.



PTO—Dual Output Shafts. 1 shaft fwd. and rev. Other shaft single speed. "PT" Series.



PTO for heavy duty operations. 1 fwd. — 1 rev. "S" Series.

POWER TAKE-OFFS . . . light, medium and heavy duty models. In single or multiple speeds, with single and dual shafts. Also a complete line of Hydraulic Pump Power Take-Offs—Motors—Valves—Cylinders.



Universal Joint — end yoke type. Needle bearing, standard length (200 Series.)

UNIVERSAL JOINTS . . . four types, light to heavy duty. Regular and slip lengths—also tubular assemblies. Round, square, and hex bores. Constructed for high angular ability—ample bearing capacity.



Universal Joint — slip type. "P and W" Series.

WRITE US FOR THE NAME OF YOUR NEAREST DISTRIBUTOR

MUNCIE

MUNCIE PARTS MFG. CO.
2601 S. JEFFERSON
MUNCIE, INDIANA, U. S. A.

OTHER MUNCIE PRODUCTS: UNIVERSAL HANGER BEARINGS • SHAFTING WITH KEYWAYS



going...

going...





gone!

KESTER ACID-CORE SOLDER owes its long-time popularity throughout the automotive trade to the fact that it increases soldering speed and efficiency. Such great acceptance is the main reason why Kester goes so fast. So do those soldering jobs.

***BE SURE YOU HAVE** those other Kester products—Radiator Flux-Core Solder . . . Plastic Rosin and "Resin-Five" Core Solder . . . Solid Wire and Bar Solder—also Soldering Salts.*

KESTER SOLDER

COMPANY **4205 Wrightwood Avenue, Chicago 39, Illinois; Newark 5, N. J.; Brantford, Canada**

Maintenance Manuals

Continued from Page 198

Auto-Lite Education Papers—Training manuals on electrical and ignition system as follows: Fundamentals of Electricity, No. T-1, each 55¢; Magnetism, No. T-2, each 55¢; Lead Acid Storage Batteries, No. T-5, each 45¢; Ignition, No. T-7, each 95¢; Spark Plugs, No. T-8, each 70¢—Education Department, Electric Auto-Lite Co., Toledo 1, Ohio.

Alternator System Operation and Test Procedures, Training Manual No. 6—13 pages—Covers operation and testing of Leece-Neville alternator systems. Free — Technical Service Dept., Leece-Neville Co., 5109 Hamilton Ave., Cleveland 14, Ohio.

The Whys and Hows of Voltage Regulators — Describes operation of Blue Streak voltage regulators. Free —Standard Motor Products, Inc., 37-18 Northern Blvd., Long Island City 1, N. Y.

Storage Battery Technical Service Manual—44 pages—Covers construction, operation, installations, service and maintenance of storage batteries. How to make certain battery repairs is included as well as a section on generating systems. Each 30¢—Assn. of American Battery Manufacturers, 2706 First National Tower, Akron, Ohio.

Delco Battery Service Manual, No. 7D-100—16 pages—Covers operation care, maintenance and trouble-shooting on Delco batteries. Each 50¢—Technical Literature Section, Delco-Remy Division, General Motors Corp., Anderson, Ind.

Auto-Lite Sta-Ful Batteries, No. BD-551—Maintenance, care and operation of Auto-Lite Sta-Ful batteries. Free—Parts and Service Division, Electric Auto Lite Co., Toledo 1, Ohio.

How to Increase Battery Life in Commercial Service, No. BD-669—Tips on battery care and operation. Free—address as above.

The Storage Battery, No. 4250—Describes service operation and maintenance on Exide batteries. Free—Advertising Dept., Electric Storage Battery Co., P.O. Box 8109, Philadelphia 2, Pa.

Motor Coach Service, No. 2924—Tips on operation, service and maintenance of batteries in motor coach service. Free—address as above.

Guide to Better Battery Charging—Pocket-size manual on how to test

(TURN TO PAGE 202, PLEASE)

SAVE
MAINTENANCE
COSTS

Brakes
Tires
Engine
Chassis
Body





HANDY
GOVERNORS
REDUCE COSTS
HELP PREVENT ACCIDENTS

7205

KS

KING-SEELEY CORPORATION
ANN ARBOR, MICHIGAN

12-ft Reefer, 1822 lb



Magnesium Dept., Dow Chemical Co. announces construction of a prototype reefer body made of magnesium. It was built by National Light Metals & Plastics Corp. for Tranter Mfg. Co., who will use the body to test reefer equipment. Weight of the 12-ft body is 1822 lb. Side and front walls need no vertical posts for strength, says Dow, since magnesium's light weight permits use of a thick enough magnesium panel to provide needed strength. Thicker metal provides increased protection for the insulating material. Hasko-Struct insulation is used. This utilizes Styrofoam insulation bonded on one side to plywood which in turn is faced with fiber glass reinforced plastic.



Harris Pine Mills Chooses Phillips 66 HDS Motor Oil

In the logging and timber industry, heavy duty trucks must meet the most severe operating conditions. Seasonal demands vary from sub-zero cold and drifted snow to highest temperatures and tinder-dry forests.

Harris Pine Mills, world's largest producers of unfinished pine furniture, well know the need for an effective preventive maintenance program to keep their trucks functioning efficiently. Says Mr. Arnold Pflugrad, Assistant Manager: "We need an oil highly resistant to oxidation and bearing corrosion, as well as an oil that will keep our engines free of deposits. So Phillips *66* HDS Motor Oil was chosen as the lubricant in all of our mobile equipment."

Mr. L. A. Stephens, Superintendent of Maintenance, reports that all engines are running exceptionally clean and free of deposits, and he credits this to the very high detergent-dispersant characteristics of Phillips *66* HDS Motor Oil. Says Mr. Stephens: "Ring sticking and valve problems have been eliminated; engine wear has been minimized, allowing much longer periods of useful operation before engines are serviced. After using Phillips HDS Motor Oil in our trucks, I would not hesitate to recommend its use for the most heavy duty type of engine operations."

Phillips 66 Heavy Duty Motor Oils offer you many advantages, on all kinds of jobs, in all kinds of equipment. You can benefit. Call, write or wire today: Sales Department, Phillips Petroleum Company, Bartlesville, Oklahoma. A Phillips lubrication sales engineer will give you complete details.

Phillips 66

It's Performance That Counts!

PHILLIPS 66 HEAVY DUTY MOTOR OILS

Maintenance Manuals

Continued from Page 200

batteries, how to charge batteries and battery trouble shooting. Free—Charging Division, Marquette Mfg. Co., 307 E. Henepin Ave., Minneapolis 14, Minn.

Battery Service Manual — Covers maintenance, operation and care of Prest-O-Lite batteries. Free — Sales Dept., Prest-O-Lite Battery Co., P.O. Box 931, Toledo 1, Ohio.

Battery Service Manual, No. 402-1688—40 pages—Manual on battery care, how to prevent battery failure, how to avoid battery failure. Free—Willard Storage Battery Co., Order Dept., E. 131st St., Cleveland 1, Ohio.

Spark Plug Shop Manual, No. A-1920—Describes care and maintenance of spark plugs. Free—Advertising Dept., AC Spark Plug Division, General Motors Corp., 1300 N. Dort Highway, Flint 2, Mich.

Blue Crown Engineering Bulletins —Periodic reports on procedures and tips for better spark plug service. Free—Blue Crown Spark Plug Corp., P.O. Box 96, Defiance, Ohio.

Service Manual, Champion Spark Plugs—17 pages — Describes Champion spark plug types, construction and sizes. Includes maintenance, trouble-shooting and heat range data. Free—Champion Spark Plug Co., Toledo 1, Ohio.

Spark Plug Checking and Cleaning Procedure—Manual containing interesting tips on checking spark plug condition. Free—address as above.

Manual of Certified Re-Wiring—50 pages—Complete review of automotive wiring with emphasis on what to look for in checking wiring. Tells how to determine correct wire size for a particular job. Free—United Motors Service Division, General Motors Corp., General Motors Bldg., Detroit 2, Mich.



Engines

High-Speed Combustion Engines—776 pages—By P. M. Heldt, this book covers the design and function of internal combustion engines and their components. Each $12.00 — Chilton Co., Book Division, 56th and Chestnut Sts., Philadelphia 39, Pa.

Modern Preventive Maintenance for Gasoline and Diesel Trucks—32 pages — Complete outline of preventive maintenance program for truck engine, transmission, brakes and wheels. Can be adapted for most operations. Free—GMC Truck and Coach Division, General Motors Corp., Pontiac, Mich.

Burd Handy Handbook—48 pages—Pocket-size handbook outlining operation and maintenance of the carburetor, ignition parts and timing, cooling system, bearings and oiling system, valves, cylinder head and walls, and pistons and piston rings. Free—Sales Dept., Burd Piston Ring Co., 1401 23rd Ave., Rockford, Ill.

Engine Principles and Automotive Tune-Up Fundamentals — Complete textbook covering internal combustion engine ignition, compressing, timing and carburetion. Includes maintenance, service, adjustment and operation data. Each $2.00—Education Dept., Holley Carburetor Co., 11955 E. 9 Mile Rd., Van Dyke, Mich.

Service Manual for the Doctor of Motors—90 pages—Complete book on piston ring service and maintenance. Includes data on cylinder, carburetor and other engine troubles affecting piston rings. Free—Advertising Services Dept., Perfect Circle Corp., Hagerstown, Ind.

(TURN TO PAGE 206, PLEASE)

"One of the best tool investments we ever made!"





The SIOUX Impact Wrench can easily cut nut running time to ⅛ of what it was by hand. When you think of the number of jobs requiring nut running, and the time involved, it's easy to see why men, who have been buying tools for a long time, say "It's one of the best tool investments we've ever made!"

Expect to cut your labor cost substantially with any impact wrench. Look to SIOUX for leadership in power, performance and endurance.

Model Number 325 **$ 99.75**
Model Number 330 **127.50**

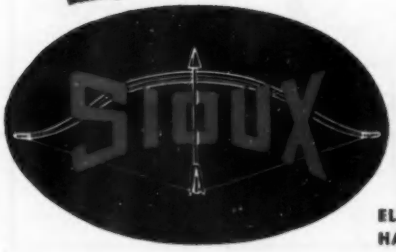
The EXCLUSIVE

REVERSE CAP SWITCH LOCK

Prevents reversing with the switch on —eliminates burning commutator, brushes and switch contacts.

WRITE TODAY
for more information.....





USE SIOUX ALL THE WAY THROUGH

STANDARD THE WORLD OVER...

ALBERTSON & CO., INC.

SIOUX CITY, IOWA, U.S.A.

ELECTRIC IMPACT WRENCHES • GRINDERS • FLEXIBLE SHAFTS • POLISHERS • DRILLS
HAND SAWS • SANDERS • VALVE FACE GRINDING MACHINES • ABRASIVE DISCS

PACKARD ENGINE
Even Steam Cleaners





"404" LOW TENSION CABLE

Stranded Copper conductor covered with tough coat of Packard "404" plastic. Small diameter, highly flexible and wear resistant.



"440" IGNITION CABLE

Long the leader, this Packard-developed high tension cable continues to be used on more vehicles than any other except those using Packard TVRS.



TELEVISION-RADIO SUPPRESSOR CABLE

This Packard exclusive suppresses radio and TV interference and is original equipment on millions of vehicles.

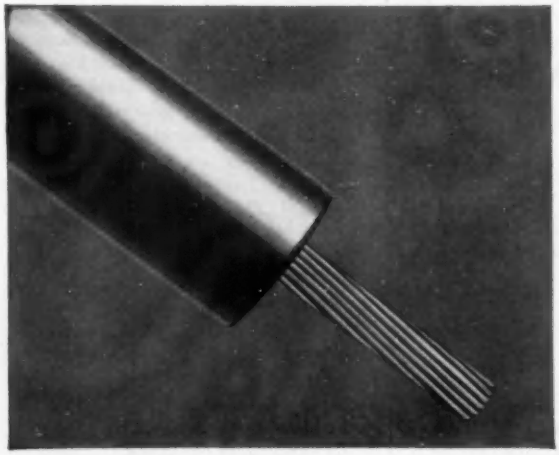
COMPARTMENT CABLE can't harm it!

Here is a compact, highly flexible low-tension cable that is practically immune to wear.

Developed by the research and engineering departments of Packard Electric, this cable is insulated with a tough coat of special plastic that withstands heat, oil, steam cleaning compounds and other deteriorating conditions. It's designed for the toughest going.

One of the newest members of the Packard Cable line, Engine Compartment Cable is still another reason why Packard is the first choice of original equipment and replacement users.

Another new rugged performer... Packard "SUPER-DUTY CABLE"



Designed for exposed wiring requirements. Special tough plastic insulation has extra resistance to wear, knocks, and weather conditions. Get the facts today on how this and other Packard Cables can cut your operating cost through longer service life.

Your Packard Jobber is waiting to serve you with the complete line. So whatever your cable requirements, deal with the world's largest producer of automotive cable—Packard. It's the original equipment line that is used more than all others combined.

BATTERY CABLES

Special design delivers full starting power. Provides extra flexibility and strength. Additional features at no extra cost make replacement easier, deliver top electrical performance.



FOREMOST BUILDER OF AUTOMOTIVE WIRING

GM GENERAL MOTORS

Packard

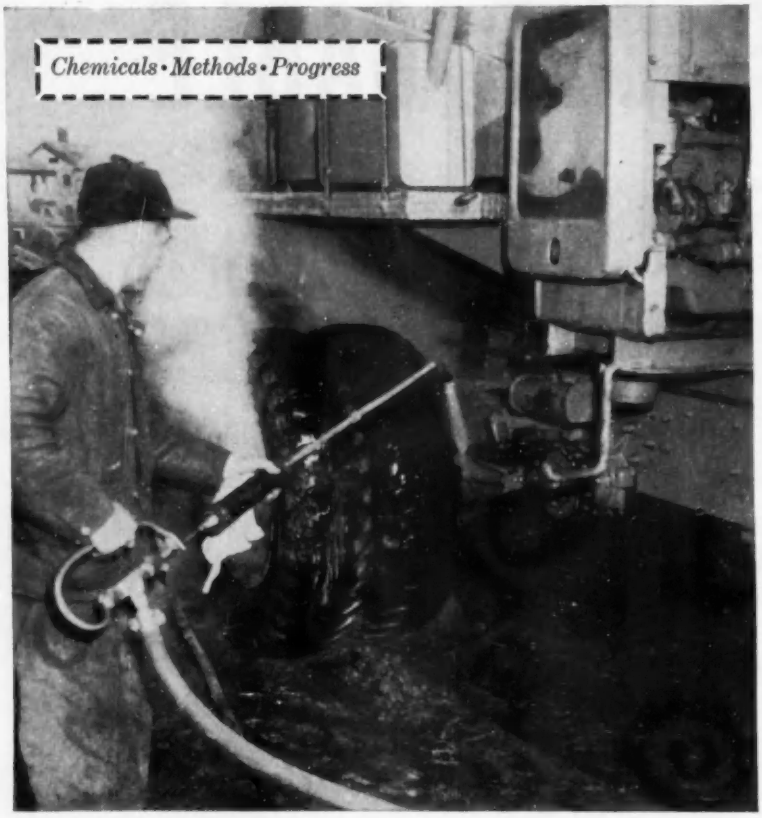
REG. U.S. PAT. OFF. TRADE MARK

Packard Electric Division, General Motors, Warren, Ohio

GM PARTS SALES — UNITED MOTORS SERVICE

A GENERAL MOTORS PRODUCT—A UNITED MOTORS LINE

DISTRIBUTED BY WHOLESALERS EVERYWHERE



Most Efficient Steam Cleaner Ever!
Prove it! Make this Free Test!

With the introduction of Magnus 115 *Liquid* Steam Cleaner, you can use the first superior cleaner that costs less per application . . . and does a more effective cleaning job.

Prove it to yourself and get these advantages:

1. Most efficient cleaning
2. No pre-mixing
3. Completely safe to handle
4. No waste
5. No caustic fog
6. Easier dispensing
7. Free rinsing
8. Works with all machines

Don't take our word for its effectiveness . . . make this Free Test. Order a 15, 30, or 54 gallon drum of Magnus 115. Don't pay for it. Use it for 30 days. If you're not completely satisfied that Magnus 115 is the best steam cleaner you have ever used, return the unused portion for full cancellation of the order.

Write to Magnus, 38 South Avenue, Garwood, N. J., and order a drum. You be the judge.

magnus

AUTOMOTIVE DIVISION
MAGNUS CHEMICAL CO., INC.

Maintenance Manuals

Continued from Page 202

Tune-Up Wall Chart — Includes tune-up specifications for Chevrolet, Dodge, Ford, GMC and International trucks. A special section is devoted to carburetor float level adjustment. Free—Standard Motor Products, 37-18 Northern Blvd., Long Island City 1, N. Y.

Motor Tune-Up and Carburetor Manual — 24 pages — Covers adjustments on various carburetor circuits —choke, pump, low speed, high speed and power system. Free—address as above.

Thompson Repair and Tune-Up Manual, Vol. 2, Trucks, Buses, Tractors, Diesel Engines, Etc.—514 pages —A how-to-do-it manual covering operations necessary in engine repair and tune-up. Each $2.50—Service Division, Thompson Products, Inc., 2209 Ashland Rd., Cleveland 3, Ohio.

High-Speed Diesel Engines — 472 pages—By P. M. Heldt, a comprehensive manual on the diesel engine including both on and off-highway truck use. Each $7.50—Chilton Co., Book Division, 56th and Chestnut Sts., Philadelphia 39, Pa.

Diesel Engineering Handbook—835 pages—Complete textbook on diesel engine operation and service. Several chapters specifically cover both on and off-highway automotive diesel engines. Each $8.50—Diesel Publications, Book Division, 192 Lexington Ave., New York 16, N. Y.

Pedrick Engine Repair Manual—Section I, General Data, 44 pages—Section II, Passenger Car Engines, 44 pages—Section III, Truck and Bus Engines, 88 pages—Covers piston ring replacement procedures and other engine reconditioning work. Free to signers of a Pedrick Fleet Agreement —Advertising and Sales Promotion Dept., Wilkening Mfg. Co., 2000 S. 71st St., Philadelphia 42, Pa.

Dynamometer Diagnosis and Adjustment Procedure for Cummins Diesel-Powered Trucks, No. C-566—Complete dynamometer diagnosis and adjustment procedure including checks for road horsepower, performance complaints and routine inspection. Free—Clayton Mfg. Co., Advertising Dept., Box 550, El Monte, Cal.

Air for Your Engine, Service Bulletin—Explains why air is important to efficient engine operation. Primarily for diesel engines, the information applies to other types of engines. Free—

(TURN TO PAGE 208, PLEASE)

FLEET MEN KNOW—

The big swing today is to CHROME...

Yes, it's true. All major engine manufacturers are using *chrome* piston rings as original equipment—recommend them for replacement. Latest survey figures indicate 57% of installations are chrome.



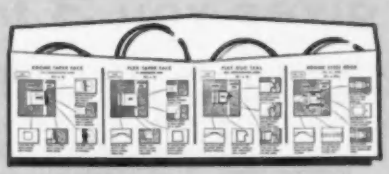
...AMERICAN HAMMERED

pre-seated Krome-Oil piston ring sets assure fast break-in . . . instant oil control



HERE'S WHY: Pre-seating is a factory-applied lapping process equivalent to many hundreds of miles of actual engine operation—assures instant oil control, less down time. Rugged dynamometer tests and strict manufacturing controls assure Krome-Oil's ability to hold oil on even the toughest jobs.

Be sure you install a full chrome ring set. Check for chrome on the top groove compression ring, on the rails of the oil ring. Install chrome confidently because Krome-Oil is pre-seated, seats instantly.



All-in-one ring envelope

All-in-one ring envelope contains all the rings for one piston. Packaged in order of installation. This prevents mix-ups, saves mechanic's time.

Handle the tough jobs right the first time—enjoy low maintenance

INSTALL KROME-OIL

American Hammered

AUTOMOTIVE REPLACEMENT DIVISION

2001 Sanford Street • Muskegon, Michigan

Manufacturers of American Hammered Automotive Replacement Piston Rings • A Division of Sealed Power Corporation

For the best in fleet maintenance—
Remember profit-packed American Hammered Power-Plus Service
KOETHERIZING • GI-60 GROOVE INSERT

Maintenance Manuals

Continued from Page 206

Cummins Engine Co., 5th and Wilson Sts., Columbus, Ind.

Mechanics Engine Bearing Reference Manual—100 pages—Manual on engine bearings covering bearing fundamentals, lubrication, failure, replacement, selection, installation, construction, performance. Free—Clevite Service, The Cleveland Graphite Bronze Co., 6545 Carnegie Ave., Cleveland 3, Ohio.

Engine Bearing Service Manual—109 pages—Complete review of engine bearing operation, types, design characteristics, tools used in installation, procedure in replacing, and trouble-shooting. Each $1.00—Advertising and Sales Promotion Dept., Federal-Mogul Service, 11031 Shoemaker, Detroit 13, Mich.

Johnson Automotive Bearing Manual—97 pages—Complete review of removal, installation and maintenance of engine bearings. Fully illustrated to provide information on trouble-shooting, lubrication, and different types of bearings. Each $1.00—Johnson Bronze Co., New Castle, Pa.

Toledo Engine Bearing Manual—100 pages—Comprehensive manual on engine bearing purpose, construction, selection, installation and performance. Each $1.25—The Toledo Steel Products Co., Toledo 11, Ohio.

Fleet Owner Data Book—Maintenance and operation of various models of Holley carburetors. When requesting, specify make and model of vehicle and carburetor. Each $1.00—Education Dept., Holley Carburetor Co., 11955 E. 9 Mile Rd., Van Dyke, Mich.

Student Data Book—Basic text on carburetion theory and review of operation of Holley carburetors. Each $1.50—address as above.

Know Your Carburetor, No. YC--55—46 pages—Manual on the construction, function and maintenance of carburetors. Free—Pennsylvania Refining Co., 2700 Lisbon Rd., Cleveland 4, Ohio.

Operation and Maintenance Manual, Rochester Carburetors—over 100 pages—Includes theory of carburetion, as well as operation, maintenance, service, adjustment, inspection and assembly of Rochester carburetors. Each $1.50—United Motors Service, 3044 West Grand Blvd., Detroit 2, Mich.

American Bosch Fuel Injection Equipment Maintenance Information, Form No. 3465—50 pages—Describes maintenance, service and operation of American Bosch fuel injection pumps, fuel supply pumps, mechanical and pneumatic governors, nozzles and nozzle holders and fuel oil filters. Fully illustrated. Each 25¢—Advertising Dept., American Bosch Corp., Springfield 7, Mass.

How to Hone Cylinders—Instructions on cylinder honing. Free—Sales Dept., Lisle Corp., Clarinda, Ohio.

Dayton Fan Belt Service Manual, No. A-951—Describes service and adjustment of engine fan belts. Free—Advertising Dept., Dayton Rubber Co., 2342 West Riverview Ave., Dayton 1, Ohio.

General Operation and Service of Automotive Pulley and Belt Drives, Service Bulletin No. 1006—Data on operation and service, including trouble-shooting, on engine fan belts. Free—Technical Service Dept., Leece-Neville Co., 5109 Hamilton Ave., Cleveland 14, Ohio.

Filter Service Manual, No. SM-54—Covers maintenance and care of fuel, oil and air filters. Free—Advertising

(TURN TO PAGE 210, PLEASE)



Cab-controlled traction . . .

HYDRO-TRAC trailing axle gives you 3 trucks in 1

When you specify HYDRO-TRAC for your new or used six-wheelers, you get *three* trucks in *one*. A cab-controlled hydraulic cylinder varies the load on the trailing axle. You can have (1) 50-50 axle load distribution for maximum legal payloads, (2) 80-20 axle load distribution for maximum traction, and (3) trailing axle up for single-axle economy.

With the trailing axle in the up position when the truck is empty, you save gas, save tires and get more maneuverability. You'll get traction up to 80 per cent of a dual-axle drive at lower first cost, lower maintenance. Write today for free HYDRO-TRAC booklet and name of your nearest distributor.

TRUCKSTELL®

Union Commerce Building, Cleveland 14, Ohio

Manufacturers of Specialized Truck Equipment for Plus Performance
Power Dividers • Dual Drives • Trailing 3rd Axles • Swivel Frames



R. S. McSorley (right), President of the Whittemore Company of Roslindale, Mass. and C. C. Caldwell, Jr., Gulf Sales Engineer, talk over the many advantages of Gulflube X.H.D. in fleet operation. This progressive firm has furnished building supplies to contractors throughout Massachusetts and surrounding states for many years.

"Gulflube X.H.D. is the motor oil for our type of operation,"

says Mr. R. S. McSorley, President of the Whittemore Co.

"Millions of miles and thousands of hours with Gulflube Motor Oil X.H.D. in the engines of our trucks have proved to us that it can't be beat when trucks must buck heavy traffic on the way to a job site or wait around with engines idling as concrete mix trucks must often do," says Mr. McSorley.

"We've been using this oil for years and find that it gives us smoother fleet operation with greater economy. It does everything a fine motor oil should do and does it better than any other we've ever tried. Our records show that this product is a real important money-saver!"

Reduces engine wear

Gulflube Motor Oil X.H.D. has the *right* combination of the *right* additives to hold contaminants in suspension so they can be drained out at oil change periods.

The accumulation of harmful engine deposits and sludge are sharply curtailed, rust formation and excessive wear are prevented. Try this outstanding oil in your fleet and see for yourself what a great job it does.

The finest petroleum products for all your needs

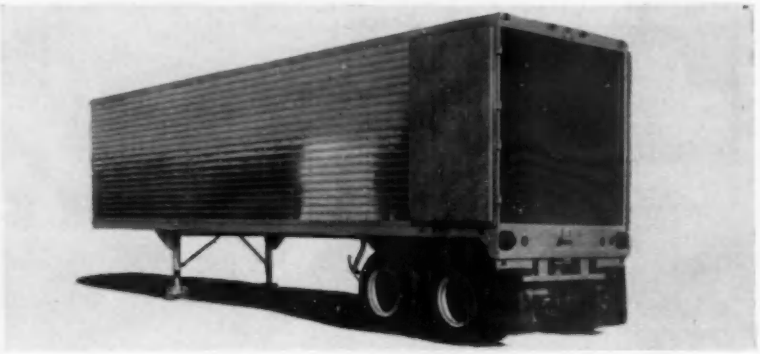
GULF

Contact your nearest Gulf office (listed in the telephone directory) or write on your letterhead to:

Gulf Oil Corporation,
Gulf Refining Company,
1822 Gulf Building,
Pittsburgh 30, Pennsylvania

Brown's High Cube

Brown Trailers, Inc., now has a whole line of high volume trailers, including van semi-trailers, doubles semi-trailers and open-top models in straight and step floor design. As an example of greater capacity, Brown says the 35-ft model in the new Series H line has a 5-in. greater inside loading height, a 3-in. greater inside loading width and a 3¾-in. greater inside loading length. "Stressed skin" and exterior post models are available. Brown says loading width clearance has been increased 9½ in. and door opening height 4¾ in.



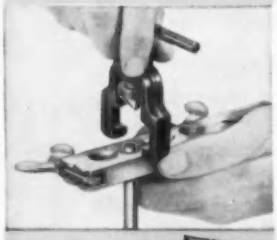
Count on these

IMPERIAL TUBING TOOLS

for handling gas, oil and brake line jobs faster and more profitably!



IMPERIAL HI-DUTY TUBE CUTTER
Free-wheeling ball-bearing action. Flare cut-off groove in roller. Retractable reamer.
No. 274-F for 1/8" to 1" O.D. tubing.....**$3.95**



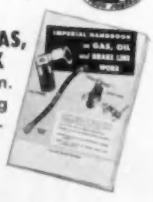
IMPERIAL FLARING TOOL *with* QUICK SLIP-ON YOKE. The fast easy way to make correct 45° flares on copper and aluminum tubing.
No. 193-F flares 3/16", 1/4", 5/16", 3/8", 7/16", 1/2" O.D. tubing.....**$4.75**



IMPERIAL DOUBLE FLARING TOOL
Makes double lap flares on seamed steel or other soft tubing for brake, oil and gas lines. Prevents splitting of tubing. Also makes single flares.
No. 93-FB double flares 3/16", 1/4", 5/16", 3/8", 1/2" O.D. tubing. In metal kit.....**$9.40**

Tube Benders and many other models of Tube Cutters and Flaring Tools also available.

IMPERIAL HANDBOOK on GAS, OIL and BRAKE LINE WORK
Excellent for training new men. Helpful pointers and tips on tubing connection work. Write for *Handbook 3016.*



Ask for Catalog 124

THE IMPERIAL BRASS MFG. CO., 1209 W. Harrison St., Chicago 7, Ill.
In Canada: 334 Lauder Ave., Toronto, Ont.

IMPERIAL

Brass Fittings • Flexible Lines
Shut-Off Valves • Service Aids
Tubing Tools • Drum Faucets

Maintenance Manuals

Continued from Page 208

Dept., Purolator Products, Inc., Rahway, N. J.

Fuel Pump Shop Manual, No. A-1919—Information on operation and repair of the fuel pump, including combination fuel and vacuum pumps. Includes testing, trouble-shooting and overhauling. Free—Advertising Dept., AC Spark Plug Division, General Motors Corp., 1300 North Dort Highway, Flint 2, Mich.

Fuel Pump Service Manual—16 pages—Covers service, operation, checking, maintenance and testing of Hygrade fuel pumps. Free—Advertising Dept., Hygrade Products Division, Standard Motor Products, Inc., 37-18 Northern Blvd., Long Island City 1, N. Y.

The Automotive Engine Piston—Covers operation and construction of automotive aluminum pistons. Free—Advertising Dept., Aluminum Industries, Inc., Cincinnati 25, Ohio.

Hastings Piston Ring Handbook—Describes maintenance, care and operation of piston rings. Includes illustrations of various types. Free—Hastings Mfg. Co., Hastings, Mich.

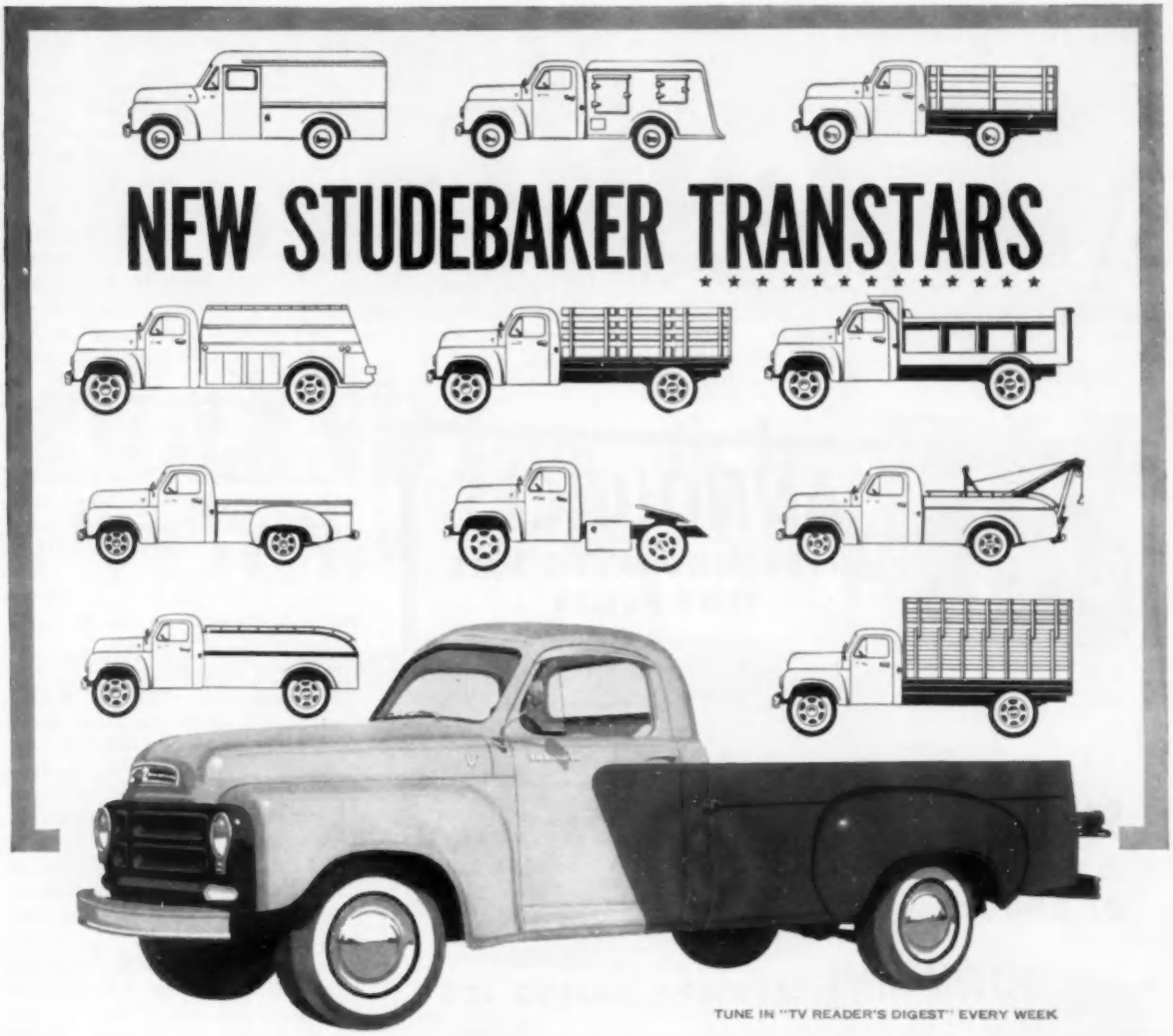
Fits and Finishes—Discussion of maintenance and operation of piston pins and cylinders. Free—Advertising Dept., Sunnen Products Co., 7910 Manchester Ave., St. Louis 17, Mo.

Just What Is a Pin Fit?—24 pages—Covers piston pin fit troubles and their cures. Tells how to check pin fits. Free—address as above.

Valve Reconditioning Use and Care Book—Manual on engine valve reconditioning. Free—Black & Decker Mfg. Co., Towson 4, Md.

Truck and Bus Lubrication Guide—Latest edition of this publication, it

(TURN TO PAGE 212, PLEASE)



NEW STUDEBAKER TRANSTARS

TUNE IN "TV READER'S DIGEST" EVERY WEEK

America's easiest riding, hardest working truck—and here's why!

Exclusive Twin-Traction Differential*—new pull-away power where other trucks bog down.

Shortest stroke V8—bar none! High torque delivers greater economy. Thrifty 6's, too!

High payload chassis construction—extra-strong frame for long truck life.

Widest clear floor in pick-ups—exclusive double-walled construction with no lost wheel well space.

Cross-link, variable-ratio steering—steadier, easier handling on turns and straightaways.

Two-stage underslung rear springs—smoother going with heavy loads; freer action "riding light."

Improved Studebaker economy—cut your gas-oil and maintenance costs through the years.

Priced with the lowest. Studebaker Transtars are priced for today's market; excel in value!

**available on ½-ton models at extra cost.*

Check your Studebaker dealer before you buy—see why you get more truck for your money when you trade for a Transtar!

STUDEBAKER TRANSTARS

star performers with saving ways

STUDEBAKER DIVISION OF STUDEBAKER-PACKARD CORPORATION—WHERE PRIDE OF WORKMANSHIP STILL COMES FIRST!

Maintenance Manuals

Continued from Page 210

covers buses, coaches and trucks, is fully illustrated for "follow-the-chart" lubrication. For price information—The Chek-Chart Corp., 31 East Congress St., Chicago 5, Ill.

Lubrication Recommendations, Fuller Transmissions—Lubrication specifications for better maintenance. Free—Service Sales Dept., Transmission Division, Fuller Mfg. Co., Kalamazoo, Mich.

Panorama of Lubrication, Fundamentals of Lubrication and Friction Type Bearings. Free—Shell Oil Co., Lubricants Dept., 50 West 50th St., New York 20, N. Y.

Panorama of Lubrication, Fundamentals of Automotive Engine Lubrication. Free—address as above.

Panorama of Lubrication, Fundamentals of Diesel Engine Lubrication. Free—address as above.

Panorama of Lubrication, Fundamentals of Lubricating Greases. Free—address as above.

Sinclair Lubrication Guide Service—8 pages, 12 pages—two booklets covering lubrication maintenance for trucks and tractors. Free—Sinclair Refining Co., Technical Service Division, 600 5th Ave., New York 20, N. Y.

Diesel Engines—Fuels and Lubricants—Covers fuels and lubricants for diesel engines. Contains maintenance, service and trouble-shooting tips. Free—address as above.

Lubrication of Diesel Engines. Free—Sun Oil Co., 1608 Walnut St., Philadelphia 3, Pa.

Diesel Operation, Fuels and Lubricants. Free—The Texas Co., 135 East 42nd St., New York 17, N. Y.

Recommended Practices for Lubricating Automotive Front Wheel Bearings—15 pages—Covers in 42 points the servicing of front wheel bearings. Each 15¢—National Lubricating Grease Institute, 4638 J. C. Nichols Parkway, Kansas City 12, Mo.

Tires

Firestone Data Book for Trucks, Trailers, Passenger Cars and Industrial Vehicles, No. 2-C-817—Includes tire care, maintenance and service data, such as a special trouble-shooting section, instruction for determining tire loads, how-to-figure tire cost per mile, and determining dual wheel spacing and clearance. Free—Advertising Dept., Firestone Tire and Rubber Co., Akron 17, Ohio.

How to Get the Most Service from Off-the-Highway Tires—40 pages—Complete discussion of care, service, maintenance and operation of off-highway tires for longer life. Free—address as above.

Nine Ways to Get More Miles Out of Your Truck Tires—8 pages—Review of tire selection, tube care, dual matching and spacing, alignment, rotation, inflation, load distribution, recapping and repair, and driving habits. Free—Sales Dept., B. F. Goodrich Co., Akron, Ohio.

How to Get More Recaps Out of Your Truck Tires—8 pages—Describes cost savings, recapping processes, rotation, tire care, and suggestions on when to recap. Free—address as above.

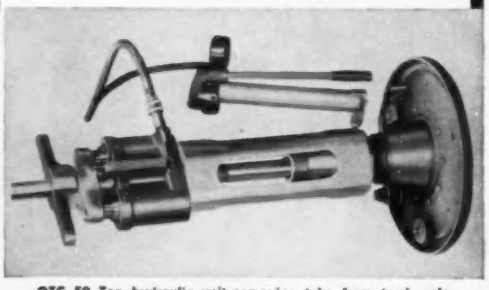
How to Cut Truck Tire Costs—Covers service, maintenance and care of truck tires. Free—Advertising Dept., Goodyear Tire and Rubber Co., Akron 16, Ohio.

How to Get Extra Service Out of Truck Tires—24 pages—Covers overload troubles, over and underinflation,

(TURN TO PAGE 214, PLEASE)

OTC ANNOUNCES

HYDRAULIC TRUCK AXLE TUBE PULLER



OTC 50 Ton hydraulic unit removing tube from truck axle housing—set up and pulling takes only a few minutes.

SAVE HOURS OF LABOR AND DOWN TIME ON EVERY PULLING JOB

With this new OTC 50 Ton hydraulic puller set, truck axle tubes may be removed (even if broken) and installed in minutes instead of hours. Assembly is simple and positive—tubes are removed without damage—and installed without distortion. Costly *Down Time* is cut by hours.

The OTC 50 Ton hydraulic unit is adaptable to hundreds of similar jobs. With the many OTC pullers and adaptors available it may be used as a portable power unit in shop or field, to push, pull, spread, lift, and straighten.

Shops already equipped with the 50 Ton unit need only to add the appropriate pulling and installing attachments.

SEE YOUR JOBBER OR WRITE US FOR COMPLETE INFORMATION



One man can quickly install a truck axle tube without distortion with a new OTC 50 Ton hydraulic unit.

FREE NEW HYDRAULIC PULLING BOOKLET

OWATONNA TOOL COMPANY 341 CEDAR STREET OWATONNA, MINNESOTA



MIDLAND Automatic Leveling Valve Is Key To New Air Ride Springing!



FOR TRUCKS

FOR TRACTOR TRAILERS

FOR BUSES

FOR AUTOMOBILES

● See Midland for the solution to your air suspension problems

MIDLAND STEEL PRODUCTS COMPANY

3641 E. Milwaukee Ave., Detroit 11, Michigan
Export Department: 38 Pearl Street, New York, N. Y.

Those Who Know Power Brakes CHOOSE **MIDLAND!**

Maintenance Manuals

Continued from Page 212

tread wear, heating, tubes, matching of duals, and driving for tire conservation. Fully illustrated to aid in truck tire maintenance. Free—Advertising Dept., Lee Tire and Rubber Co. of N. Y., Conshohocken, Pa.

How to Get Extra Service Out of Automobile Tires—30 pages—Covers tire maintenance with emphasis on passenger car and similar size tires. Free—Rubber Manufacturers Assn., 444 Madison Ave., New York 22, N. Y.

Truck and Bus Tire Manual, Seiberling Product and Data Book—Pocket-size manual on tire, tube and rim maintenance and selection. Free—Seiberling Rubber Co., Truck Tire Sales Dept., Akron 9, Ohio.

Tubeless Tires

Tubeless Tire Instruction Booklet—Guide to servicing and trouble shooting on tubeless tires. Free—Armstrong Rubber Co., Advertising Dept., West Haven, Conn.

Tubeless Tire Servicing Chart—Illustrated wall chart on tubeless tire servicing and repair. Free—Dayton Rubber Co., 2342 Riverview Ave., Dayton, Ohio.

All You Need to Know About Tubeless Tires for Trucks—12 pages—Brief but compact review on servicing, repair and advantages of tubeless truck tires and rims. Free—The B. F. Goodrich Co., Tire and Equipment Division, Akron, Ohio.

Complete Guide to Proper Service and Repair of Tubeless Tires—12 pages—Illustrated manual on tubeless tire servicing. Includes a 22 point "Do" and "Don't" list and a review of six ways to repair a tubeless tire. Free—Jack P. Hennessy Co., 12 Depot Square, Englewood, N. J.

Tubeless Automobile Tires, Mounting. Demounting and Repairing—8 pages—Describes tubeless tire servicing including preparation of the rim, valve installation, tire mounting, inflation, demounting and repair. Free—Rubber Manufacturers Assn., 444 Madison Ave., New York 22, N. Y.

(TURN TO PAGE 218, PLEASE)



Before You Buy a Hydraulic 5th Wheel

Check These Outstanding Pollard Advantages

- The Pollard offers a choice of Fruehauf or Holland 36" cast steel 5th wheel.
- No mutilation of chassis in making the installation.
- No push or pull of trailer or tractor when lifting or lowering.
- 9¾" mounting height eliminates necessity of slamming under trailer front.

Patented in U. S. and Canada

Write for Literature On New Model

C. E. POLLARD CO.

14571 Schaefer Rd. Detroit 27, Mich.

Pollard 5TH WHEEL HYDRAULIC PLATFORM

10 Speeds, One Lever



Mack Trucks, Inc., announces its new "Unishift," a truck transmission with 10 forward speeds shifted by a single lever. Mack says it's a redesign and development of its earlier Monoshift series. It will be offered in three sizes designed to accommodate a full range of highway trucks. The transmission combines a five-speed gear box with power-operated synchronized shifting of a two-speed compound. A small double-acting air cylinder acts directly on the compound shifter rail to do the job. Cylinder is controlled by two valves. One valve is actuated by a "flipper" just below and in front of the gear shift lever knob. The other is controlled by the clutch, prevents air entering the cylinder except when clutch is fully disengaged.

This is why...

A disabled vehicle is a *sitting duck* for a highway pile-up.

'Till now, there has been no way for a driver to alert traffic to the *sitting duck* hazard created by his disabled vehicle until he got out of the cab and placed the required flares.



ATA wants it...

American Trucking Associations, Inc.

(Excerpts from)
ATA Recommended Equipment Specification E-3-1955

6.01 Front turn signals shall be of the double faced (amber to front, red to rear) Class A, Type 1, mounted in accordance with SAE mounting specifications except when impractical due to vehicle design.

6.04 Turn signals shall be wired in such a manner that they will flash simultaneously to indicate vehicle disability.

Signal-Stat has it...

Sigflare, the multi-purpose signaling system that conforms with every new ATA Lighting and Wiring Recommendation. With as few as 4 lamps and 1 switch *Sigflare* provides:

A—The most powerful Class A, Type 1, directional signals on the market with Double Face Lamps for front mounting and rear lamps to suit your individual installation.

B—The flare feature with positive pilot action that instantly and simultaneously flashes all 4 signal lamps to warn oncoming traffic that the vehicle is disabled.

C—2 Stop Lamps as powerful as Class A, Type 1, signal lamps.

D—2 Tail Lamps as powerful as the law allows.

For more information about *Sigflare* and a complimentary copy of the new ATA Lighting Recommendations, see your jobber or write to:



With Signal-Stat #800 switch and heavy duty flasher, one set of lamps does it all.

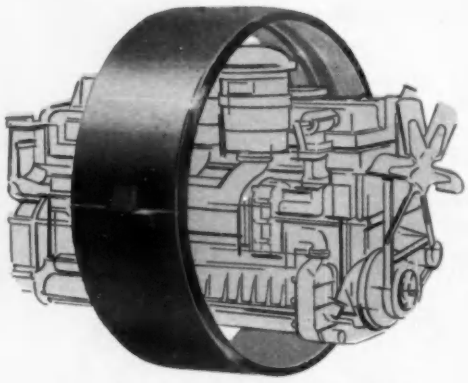
Signal-Stat DIRECTIONAL SIGNALS • SWITCHES • FLASHERS
Signal-Stat Corporation, 523-39 Kent Ave., Brooklyn 11, N. Y.

Sigflare available for passenger cars too. Flarestat converts already installed signal lamps to double as dissability lamps.

Moraine-400

THE ONE AUTOMOTIVE OUTPERFORM ALL





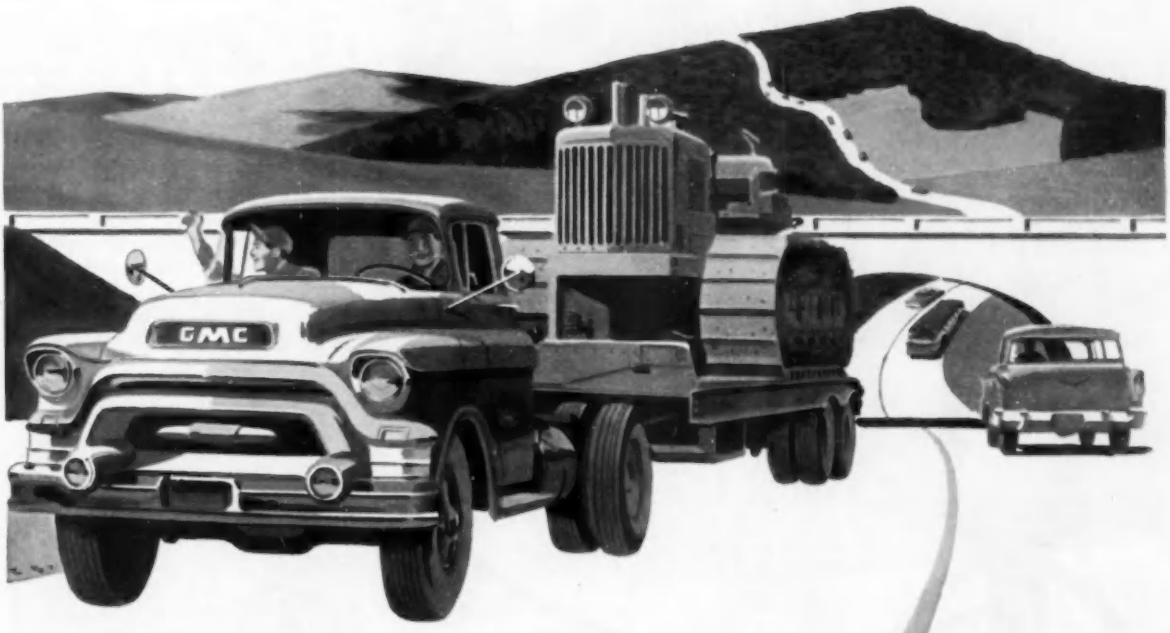
A special aluminum alloy developed by General Motors gives the Moraine-400 its extreme toughness . . . makes it the toughest automotive engine bearing ever made.

Today's traffic is heavy and fast-moving. It demands superior performance from the bearings in modern high-compression engines. As a result, the bearings that carry the engine load have to be tougher . . . have to give maximum mileage to make payloads pay off. The answer: Moraine-400s . . . the engine bearings that assure more road-time, less down-time.

Leading manufacturers of trucks, tractors, buses—as well as off-the-road equipment—

Another General

BEARING DESIGNED TO OTHERS IN TODAY'S ENGINES



use Moraine-400s as original equipment in their gasoline and Diesel engines. Moraine-400s are also being used more and more to increase the dependability of engines in today's passenger cars. Be sure that the next vehicle you buy has Moraine-400 engine bearings . . . toughest ever made.

Moraine-400 bearings are available for replacement use through the United Motors System as well as General Motors car and truck dealers.

Motors Value

Everywhere you look on America's highways, Moraine-400 engine bearings are hard at work. They're original equipment in leading makes of gasoline and Diesel engines for automobiles, trucks, buses, and farm tractors.

Moraine Products

Division of General Motors, Dayton, Ohio

Maintenance Manuals

Continued from Page 214

Tools and Procedures

How to Run a Lathe—128 pages—Training manual on care and operation of a metal working lathe. Each 50¢—Advertising Dept., South Bend Lathe Works, South Bend 22, Ind.

How to Run a Drill Press—31 pages—Information on various drilling methods. Each 25¢—address as above.

Aluminum Body Servicing—8 pages—Considers dents, patching, use of rivets or screws, replacing panels and other problems in repair of aluminum bodies. Free—Sales Promotion Dept., J. B. E. Olson Corp., 1740 Broadway, New York 19, N. Y.

Fruehauf Tank Trailer Repair Manual—31 pages—Comprehensive manual on repair of tank trailers. Includes procedure for explosive testing, ICC regulations on tank trailer transport as well. Free—Fruehauf Trailer Co., 10940 East Harper Ave., Detroit 32, Mich.

Spray Painting Hints—Brief folder listing possible spray painting troubles and suggestions for correcting them. Binks Mfg. Co., 3114 West Carroll Ave., Chicago 12, Ill.

Selecting an Air Compressor—Information on how to select an air compressor together with maintenance and service data. Free—Sales Dept., DeVilbiss Co., Toledo 1, Ohio.

Making the Most of the Spray Painting Method—32 pages—Illustrated information on how-to-do spray painting together with instructions on proper care of equipment. Free—address as above.

The ABC of Spray Equipment—Interesting facts on care and maintenance of spray painting equipment. Free—The DeVilbiss Co., Toledo 1, Ohio.

Hot Spray Application of Automotive Finishes—Summary of information on hot spray painting. Free—Automotive Division, Sherwin-Williams Co., 101 Prospect Ave., N.W., Cleveland, Ohio.

How to Repair a Reinforced Plastic

(TURN TO PAGE 220, PLEASE)





Accurate pressure is a must to keep these babies rolling!

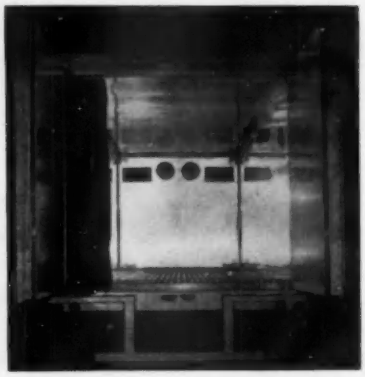
...and it cuts maintenance costs!

For dependable, safe and economical operation, you've got to have accurate tire pressure. Under or over inflation shortens tire life and raises fleet costs per mile. ECO Tireflators will give your fleet accurate desired pressure from 5 to 110 pounds. And ECO is economical. The initial cost is usually the last. Ask your John Wood Representative for details about ECO Remote Tireflators and ECO Islanders® for tire-saving control of inflation pressures.

Model 98 ECO Tireflator.
Other models for mounting on wall, pillar or post and with remote reel.

JOHN WOOD COMPANY
Bennett Pump Division, Muskegon, Michigan
In Canada: Toronto • Montreal • Winnipeg • Vancouver

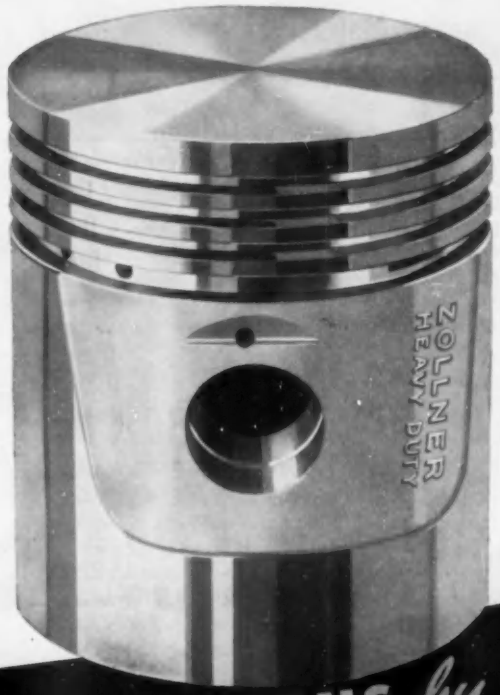
Dividing the Cold



Kingham Trailer Co. announces a refrigerated trailer with sliding partition to separate freezing area from one less cold. Says Kingham, front area can be maintained at zero, if desired, while rear compartment is kept at 40 deg. F. Partition can be moved 12 ft, six feet forward of center or six feet backward. Two doors are provided, one at the rear and a side door for the front compartment. Each door has a sliding nylon curtain to keep cold air inside and hot air outside during loading. Partition slides on an overhead rail and two side tracks. Tracks are attached to the walls, not set into them, thus do not cut down on thickness of the trailer's 6-in. insulation.

THE

ORIGINAL EQUIPMENT PISTON OF OVER 70% OF ALL TRUCK AND BUS MANUFACTURERS



ZOLLNER PISTONS — HEAVY DUTY PISTONS *by* ZOLLNER

Proved by Fleet Records Everywhere
HIGHEST ENGINE PERFORMANCE
LOWEST MAINTENANCE COST

For reconditioning Always Specify the "ENGINEER APPROVED" PISTON

Expertly engineered pistons make a big difference in engine performance—and operating cost. That's why it's always best to insist on Zollner "Engineer-Approved" Pistons when reconditioning your engines. The big majority of engine manufacturers work hand-in-hand with Zollner engineers in the development of pistons best suited to heavy-duty use. Over 70% of all makes of trucks and buses are Zollner equipped — and have been for years. Only when you use Zollner can you be sure that your pistons are expertly designed and precision-made to individual engine specification for utmost performance and economy of operation.

ZOLLNER • FORT WAYNE, INDIANA

Maintenance Manuals

Continued from Page 218

Fender — A step-by-step illustrated outline on the repair of fiber glass reinforced plastic body components. Free—Lunn Laminates, Inc., Sales Dept., Huntington Station, Long Island, N. Y.

You Can Fix Cars, Chilton Automobile Repair Manual — 904 pages — Comprehensive repair manual for passenger cars. Each $6.95—Chilton Co., Book Division, 56th and Chestnut Sts., Philadelphia 39, Pa.

Fix Chevrolets—144 pages—Complete maintenance and trouble shooting manual on Chevrolets for passenger car fleets. Each $2.95—address as above.

Fix Fords—144 pages—Covers the same material as manual above except it applies to Fords. Each $2.95—address as above.

Fix Plymouths—144 pages—Covers the same material as manual above except it applies to Plymouths. Each $2.95—address as above.



What automotive miracles will be wrought on the drawing-boards of Detroit in the next ten years? What's the limit on SIZE . . . on HORSEPOWER?

These questions concern you now, because the machine tools you buy today must work on the cars, trucks, tractors and busses of tomorrow.

One way to be sure your automotive machine tools will have a long profit-making life is to make sure they bear the name LEMPCO—which means they are "forward-designed", with the future in mind!

LEMPCO PRODUCTS, INC. · BEDFORD, OHIO

Welding Techniques

Recommended Safe Practices in Cutting and Welding — Pocket-size manual that covers welding safety from all angles. Free—Air Reduction Sales Co., 60 East 42nd St., New York 17, N. Y.

Safety in Electric and Gas Welding and Cutting Operations—Manual on safety in welding and cutting procedures. Each 50¢—American Welding Society, Inc., 33 West 39th St., New York 18, N. Y.

Safe Practices for Welding and Cutting Containers That Have Held Combustibles—Manual on safety in welding gas tanks and other tanks to avoid explosions and other dangers. Each 50¢—address as above.

Truck and Car Fleet Maintenance and Repair Welding Manual, No. TIS 1010—56 pages — Covers almost all welding operations in fleet maintenance. Free—Eutectic Welding Alloys Corp., 40-40 172nd St., Flushing, N. Y.

Carbon Arc Welding—Short booklet on carbon arc welding. Free—Hobart Brothers Co., Hobart Square, Troy, Ohio.

How to Build Your Own Arc Welder —Handy booklet illustrating many varieties of shop-assembled portable and other arc welding rigs. Free—address as above.

Modern Welding, a Text Book—Book covering welding practices and equipment. Each $3.00—address as above.

Metals and How to Weld Them—322 pages—Complete text book on welding, welding trouble shooting, how to weld various metals. Each $2.00—The James F. Lincoln Arc Welding Foundation, Cleveland 17, Ohio.

Weldability of Metals — Data on welding of different metals. Each 50¢ —Lincoln Electric Co., 22801 St. Clair Ave., Cleveland 17, Ohio.

Welding Precautions and Safe Practices—Information on welding technique with emphasis on safety in welding. Free—Linde Air Products Co., 30 East 42nd St., New York 17, N. Y.

Guide to Better Welding—Explanation of welding techniques. Free—Sales Dept., Marquette Mfg. Co., 307 East Hennepin Ave., Minneapolis 14, Minn.

Welding Manual, No. 127.19:W45/2 —208 pages—Basic on-the-job training manual in welding. Each $1.75—U. S. Government Printing Office, Superintendent of Documents, Washington 25, D. C.



TUBE OR TUBELESS...

Most flats SIGNAL before they happen

On the highway the simplest flat takes costly time to change. Yet most flats give ample warning for you to catch them in the shop. Air pressures, gauged daily, instantly give the signal. An unusual pressure drop means there's a flat in the making. This advance notice of punctures or slow leaks means you fix flats in the shop where it costs you much less than on the road.

Certify the accuracy of your gauging-inflating equipment with Schrader 8106B Trutest Special Gauge, and inspect all tires with Schrader Service Gauges. Schrader Chucks, Couplers, Chuck Gauges and Accessories help air lines operate faster and better. And always specify genuine Schrader Tire Valves, Cores and Sealing Caps which are guaranteed airtight even at 250 pounds pressure!

Schrader Products important to best tire maintenance

Service package of 100 Schrader 880 Caps

Service package of 100 Schrader 4000 Cores

A. SCHRADER'S SON
Division of Scovill Manufacturing Company, Incorporated
470 Vanderbilt Avenue, Brooklyn 38, N. Y.

Schrader®
ESTABLISHED IN 1844

FIRST NAME IN TIRE VALVES
FOR ORIGINAL EQUIPMENT AND REPLACEMENT

FRUEHAUF PARTS THAT AFFECT ...AT NEW



FRUEHAUF BRAKE DRUMS
Long wearing alloy, with millions of miles of road-testing, perfectly balanced, dissipate heat evenly, assure safe stops and many extra miles of operation.

FRUEHAUF PARTS & ACCESSORIES



STEEL AND ALUMINUM SUPPORT ASSEMBLIES

TIRE CARRIERS

BRAKE PARTS . . . INCLUDING LINING AT BULK PRICES

NEARLY 80 NEARBY FRUEHAUF BRANCHES OFFERING FACTORY SERVICE

YOUR OPERATING COSTS . . .

LOW PRICES!

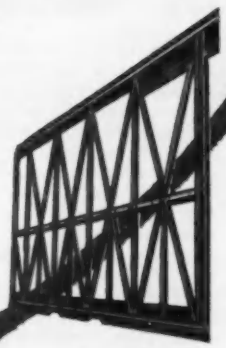
THE REASON: Increased Production!



SIDE AND REAR DOORS



WHEELS



STRUCTURAL BODY MEMBERS



ALUMINUM FLOORING



ROOF ASSEMBLIES

YOUR DAILY FLEET COSTS will be *directly* reduced by the drastic new price cuts on vital Fruehauf parts. Costs are down, not just on optional accessories, but on *necessary working equipment!*

Doors, wheels, brake drums, body parts, and other equipment have been reduced in price by up to 50% at all Fruehauf Branches. Increased factory output has made it possible to pass parts savings directly on to you . . . but with no change in consistently high Fruehauf quality.

You'll see the new, lower parts prices reflected in the cost of efficient Trailer Service at all of the 80 factory-equipped Fruehauf Branches, too. As an added convenience Fruehauf now offers Service Finance to qualified operators on many repair operations. Call now for the latest, *lowest* price list!

OR FAST PARTS DELIVERY!

World's Largest Builder of Truck-Trailers

FRUEHAUF TRAILER COMPANY

10941 Harper Avenue • Detroit 32, Michigan

● **SEND YOUR NEW PARTS PRICES TO ME RIGHT AWAY!**

NAME_____

COMPANY_____

ADDRESS_____

CITY_____ STATE_____

Selected Safety Films for Truck and Bus Fleets

THIS list of safety films will provide effective instruction for your drivers, mechanics and other employees (1) in how to prevent traffic and shop accidents, and (2) in what to do when an accident happens. It is a well known fact that preventing accidents means reduced insurance costs, less employee and vehicle time lost, too These films will help you make these savings at low cost.

The films in the list have been especially selected for their direct application to bus and truck fleet employee training. Additional information on more general traffic safety films is available from the editors.

Films in this section are arranged as follows:

1. Driver Training, General
2. Driver Training, Bus
3. Driver Training, Truck
4. Fire Prevention and Control
5. First Aid
6. Shop and Dock Safety

Most of these films are available for your use without cost—you pay only transportation and insurance. Others carry a nominal rental charge. Because of demand, films should be ordered as far in advance as possible.

All of the films on the list are 16 mm. All are sound films unless otherwise indicated. **Sound films should never be shown in a silent-type projector** as it destroys the sound track. Projectors for showing the films, if not otherwise available, can usually be rented locally at low cost.

Numbers at the end of each film's description refer to the list of sources beginning on page 238.

"Three times I crawled under the trailer, and three times I came back out, losing my nerve . . ."







The Bonney X-4 Geared Head Wrench makes tough jobs easy—in all heavy service work. It is designed as an *intermediate unit* for use with ratchets, torque wrenches, sockets and attachments. Rugged, lightweight and portable, the unit is easily used in shop or field. Ask your Bonney Jobber for complete information.

"Recently I had to rebuild the two rear springs on a large gasoline truck with 'U' bolts so badly rusted that we couldn't remove them with anything we had in the shop. Then, I decided to use an acetylene torch and burn them off as I had done many times before.

"However, I became leery for two reasons—the tank was leaking gas, and within the last two months, two local men had been killed on similar jobs. *Three times I crawled under the trailer, and three times I came back out, losing my nerve.*

"Finally I decided to remove the entire rear axle and springs . . . and then burn off the 'U' bolts. Then, I remembered reading about the Bonney X-4. I decided to try it. 20 minutes after I put the Bonney X-4 Wrench on the first 'U' bolt, I had the springs ready to remove from the trailer. It was as easy as removing the 'U' bolts from a pleasure car."

Bernie Merkin
MERKIN AUTO SPRING CO.

BONNEY FORGE & TOOL WORKS
ALLENTOWN • PENNSYLVANIA

BONNEY TOOLS

Driver Training, General

The Champ Becomes Deaf and Blind—10 min—Color film for professional drivers shows why the ability to concentrate on the job of driving, shutting out all distractions, is a big part of professional driving skill. Rent—29.

A Day in Court—29 min—Story of a day in traffic court. Shows how the accidents that come up for hearing happened and what could have been done to prevent them. Free loan—23.

Let's Count the Cost—16 min—Shows how much accidents cost, illustrating the effect of rising prices and wages on accident claims and how careless driving has increased the number of these claims. Free loan—1.

Live and Let Live—10 min.—Color film using three-dimensional, scale-model, animation to demonstrate 10 leading causes of driving accidents. Free loan—1.

Night and Bad Weather Driving—11 min—Basic film on safe driving at night and in bad weather. Free loan—11.

Ninety-Day Flash—10 min—Color film shows how small driving errors made by professional drivers lead to faulty driving habits and inevitably into accidents. Rent—29.

Problems of City Driving—11 min—Basic film on recognition of haz-

(TURN TO PAGE 226, PLEASE)

SMITHway "5th Wheel"

PAYS OFF...

Lower Cost

Higher Profit



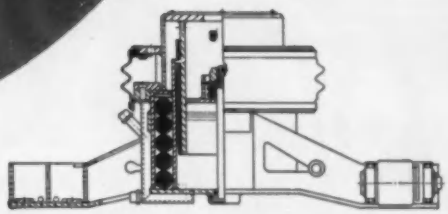
ELIMINATION of cumbersome conventional, heavy, steel spring suspension cuts weight approximately 400 lbs. on truck trailers. Cost-conscious operators convert this weight saving into 400 lbs. more payload. Many other advantages to the SMITHway "5th Wheel." Recommended by leading trailer makers. Send for Bulletin T-1.

Through research ...*a better way*

A.O.Smith
CORPORATION

TRUCK AND TRAILER PRODUCTS

5715 Smithway Street, Los Angeles 22, California



Engineering cross-section shows construction details of the SMITHway "5th Wheel." Load carrying capacity, spring action, pivoting and turning are provided for by the ingenious use of giant-sized synthetic rubber "O" rings immersed in oil.

Easier Handling
Veteran drivers report that truck trailers with the new "5th Wheel" follow better, are easier to handle.

Service Tested
Several hundred of the new "5th Wheels" are now in service and have established records of superior performance on all types of highways.

Lower Maintenance Costs
No expensive ball or roller bearings to wear and require replacement in this "5th Wheel."

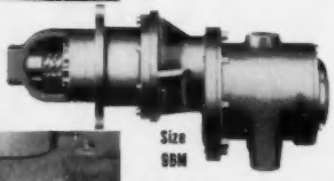
WIDE APPLICATIONS
SMITHway "5th Wheel" Suspensions are in use on hundreds of tank trailers and flat bed trailers. May also be installed on vans, stake trailers and dollies.

FREIGHT CARRIER SAYS...

AIR STARTING MOTORS ARE SAVING MORE THAN $33,900 A YEAR



● Maintenance man looks over a 13" x 56" aluminum starting-air tank installed in cab.





●93 Units Cut Repair Costs 81%—Eliminate Cold-Weather Starting Problems

Carolina Freight Carriers Corp., Cherryville, N.C. reports 93 Ingersoll-Rand Air Starting Motors are returning more than $350 a year per tractor on electrical repair savings alone.

Extra earnings are also enjoyed from the increased freight revenue realized through the 98 pound weight savings on each installation. In addition to these amazing dollar benefits, Carolina Freight now enjoys faster, surer starting regardless of weather, and longer life for generators and remaining batteries.

Want similar savings for your own fleet? Simply contact your truck or engine distributor or write for more details on money-saving Ingersoll-Rand Air Starting Motors.

18A-194

Ingersoll-Rand

11 Broadway, New York 4, N.Y.



Originators of Impactools **AIR & ELECTRIC**

Safety Films

Continued from Page 224

ards in driving, in heavy traffic. Free loan—11, 42.

Safety Is No Accident—13 min—Color film illustrating the theme that highways would be safer if all drivers were like professional truck drivers. Describes the automobile cameras for highway observation used by Markel Service, Inc. Free loan—22.

Short Stops—10 min—Describes operation of automobile hydraulic brakes and how to use them effectively. Free loan—11.

Skill Is Your Business—10 min—Color film shows what it takes to maintain professional driving skill day after day, year after year and always have it on tap to meet those unexpected situations which often involve unskilled drivers in accidents. Rent—29.

Smooth Operation—16 min—Describes the hazards of the distractions and delays of city driving. Shows how when truck drivers fight traffic, they make driving tougher on themselves. Rent—29.

Speed and Reflexes—11 min—Demonstrates effect of speed in relation to physical laws of motion, human reflexes and reaction time. Effects of fatigue on the drivers are shown. Free loan—42. Rent—33.

Take a Look at the Odds—10 min—Color film tells why the right attitude towards safety by professional drivers is the best insurance against accidents. Shows how the odds are always in favor of the driver who plays it safe. Rent—29.

You Bet Your Life—10 min—Driver training film on road signs, road markings and hand signals. Rent—33.

Watch Your Handicap—10 min—Color film designed to show professional drivers handicaps to safe driving resulting from lack of sleep, improper food habits, irregular health habits. Rent—29.

With Care—11 min—Shows professional, safe truck driving practices. Rent—8, 19.

Driver Training, Bus

Bus Driver—10 min—Description of the hazards a professional bus driver meets on his daily run. A guide to safe, professional bus driving. Rent—39, 40.

Gentlemen of the Highway—10 min—Illustrates qualifications, training, equipment and everyday routine of

the intercity bus driver in attaining safe operation. Free loan—1.

Hustle and Bustle—10 min—Shows safe bus operation illustrating checking the vehicle, stopping, starting, following distances, safe speeds, turns, pedestrians, courtesy and reporting of hazards. Free loan—42.

It's a Big Job—25 min—Basic training film for urban transit bus operators. Rent—29.

The Operator and His Job—13 min—Basic film on the job of the urban transit bus operator. Free loan—2. Rent—15, 40.

The Operator and His Passengers—19 min—Demonstrates relationship of the urban transit bus operator and his passengers. Free loan—2.

The Operator and Safety—19 min—Shows techniques of safe operation for urban transit bus operators. Free loan—2. Rent—19, 29, 40.

Priceless Cargo—20 min—Demonstrates school bus accident prevention and proper planning of school bus routes. Free loan—38.

School Bus Operation, Part 2, Driving Hazards—Safety—14 min—Shows safe driving habits and practices in school bus operation. Free loan—11. Rent—15, 18, 19, 31, 40.

School Bus Safety—18 min—Discusses safety factors involved in transporting school children. Includes maintenance and operational procedures. Rent—14, 43.

Driver Training, Truck

Caution at the Crossroads—12 min—Instructional film for truck drivers on avoiding intersectional accidents. Free loan—11, 13, 16, 20, 21, 25, 42. Rent—29.

Champions at the Wheel—17 min—Color film shows safe driving practices for semi-trailer drivers. Free loan—1.

Danger in Reverse—18 min—Basic film on backing commercial motor vehicles. Free loan—11, 13, 16, 20, 21, 25, 42. Rent—29.

Dark Daze—10 min—Illustrated effect of proper and improper eating and sleeping habits on night drivers of commercial vehicles. Free loan—13, 20, 25, 42. Rent—29.

Hell Wouldn't Have Him—30 min—Film for truck drivers showing results of carelessness on highways. Free loan—3, 6, 42.

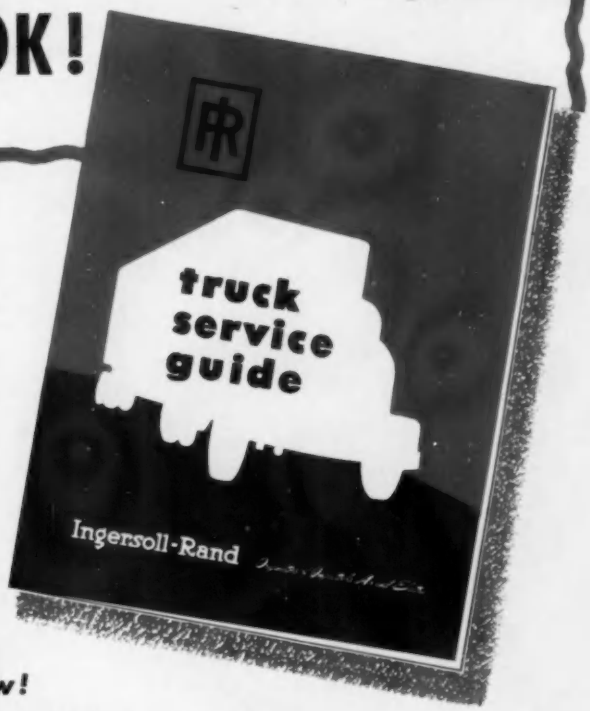
Knights on the Highway—10 min—Commercial driver training film on night driving safety. Rent—8, 14, 17, 19, 42.

The League of Frightened Men—22 min—Color film illustrating safe driv-

(TURN TO PAGE 230, PLEASE)

. . . if you service trucks

YOU NEED THIS FREE BOOK!



It's new!

A 32-page guide showing actual time and money savings on typical service jobs using I-R Air or Electric Impactools.

See proof of the savings you can expect, when you equip your mechanics with dependable performing Ingersoll-Rand Impactools. The complete story is yours simply by sending us the coupon below or dropping us a line on your company letterhead.

18A-839

Ingersoll-Rand

11 BROADWAY, NEW YORK 4, N. Y.

Please send me a copy of your new "Truck Service Guide" that's just off the press!

NAME_____

COMPANY_____

ADDRESS_____

CITY_____ ZONE_____ STATE_____



The only spark plug you can afford is the best spark plug that's made!

As a fleet operator, you know that the efficiency of any engine hinges on its weakest spark plug. The wear on a cylinder wall and piston, through loss of lubricant washed away by unburned fuel, adds up to expensive maintenance in a short period. This can result from using a spark plug that is ALMOST right for the engine.

The best spark plug made is the only right spark plug for your engine. If you're not already using the Auto-Lite Transport Spark Plug, it will pay you to examine this special plug and put it on test in your fleet. You'll find it's ignition-engineered to give top performance under all kinds of driving in all kinds of service.

You'll find, too, that Auto-Lite Transport Spark Plugs are winning preference for top performance under the toughest kind of comparative tests.

Here is your spark plug—ignition-engineered by Auto-Lite specifically for top performance where performance pays off. It's the RIGHT spark plug for your fleet.



AUTO-LITE SERVICE TIPS

KEEP IT CLEAN WHEN REMOVING SPARK PLUGS FOR A COMPRESSION TEST

Often a piece of hard carbon dropping from a spark plug, as it breaks away from the head during plug removal, will lodge under the exhaust valve, holding the valve open during the compression test. This will result in a low reading. To avoid this here's how to remove plugs correctly to be sure of *accurate* compression readings:



1. **Remove wires and clean recesses around each plug with air blast.**
2. **Unscrew each plug about one to two turns.**
3. **Tighten plugs again, replace wires, start engine and race to blow any loose particles from combustion chamber.**
4. **Stop the engine, remove plugs. Now, make your compression test.**

HEAVIER INSULATOR with greater resistance to hi-voltage and to breakage.

INSULATOR TIP ignition-engineered to stay clean longer. Safeguards performance.

OVERSIZED ELECTRODES of a special alloy allow the economies of wider gap with reduced electrical and heat erosion.

AUTO-LITE

spark plugs

Auto-Lite manufactures over 400 products, including Spark Plugs, Batteries, Wire and Cable, and Automotive Electrical Systems . . . sold throughout the United States and Canada.



MALSBARY 300 HPC cleaner permits simultaneous use of high pressure hot and cold water—(left) hot solution to 325° F. for removing dirt and grease from fifth wheel and refrigerator unit; (right) high pressure cold water to 400 p.s.i. for cleaning trailers inside and out.

Got a Big Fleet to Maintain?

Use Malsbary 300 HPC Cleaner

"Malsbary 300 has everything we want; capacity for two operators, will run 16 hours a day, day after day. We've had no downtime in nine months' constant operation," reports W. Hays, Fleet Manager for Southwest Freight Lines, operators of 350 tractors and trailers.

After each road trip, Southwest Freight Lines cleans its trailers, inspects tractors and cleans them where appearance requires it. A Malsbary 300 HPC (high pressure combination) cleaner, capable of simultaneous high pressure steam cleaning and cold water blasting has proved to be just the ticket for this big fleet. It cleans a tractor or trailer, including refrigerator unit, in 60-75 minutes, handles 20-35 trucks and tractors daily.

Take a look at these cleaning actions you get with Malsbary 300:

1. High pressure hot solution to 400 p.s.i. at 325° F. to soften and blast away waterproof greases, tars, corrosive oil and dirt.

2. High pressure cold water to 400 p.s.i. for rapid removal of caked mud and dirt, or cold rinsing after steam cleaning.

3. High pressure hot water to 400 p.s.i. at 200° F. to melt and remove ice and frozen mud, or to rinse equipment.

4. Low pressure wet steam (15 boiler hp.) to degas and clean tank interiors or for deicing, general heating and thawing.

5. Low pressure warm water for washing trucks, tractors, etc.

6. Simultaneous high pressure steam and high pressure cold water.

7. Simultaneous steam cleaning and degassing tank interiors while high pressure cold water cleans exterior.

No wonder Southwest Freight Lines and so many other big fleet operators find Malsbary 300's the answer to their maintenance cleaning problems.

Big fleet or small? Malsbary makes the only complete line of steam cleaners on the market; models from 50 to 400 p.s.i., and 60 to 2,100 g.p.h. Call your Malsbary dealer NOW and get the right size cleaner for your fleet.

MALSBARY
SINCE 1921 MANUFACTURING CO.

Room K 845-92nd Ave., Oakland 3, Calif.

Safety Films

Continued from Page 227

ing practices for fleet passenger car, over-the-road and city delivery truck drivers. It is an illustrated discussion between three drivers on how they have been able to avoid accidents. Free loan—27.

Look What You're Missing—27 min—Color film illustrating driving tip-offs used by truck drivers to prevent accidents. Basic film on defensive driving. Free loan—20.

Looking for Trouble—10 min—Commercial driving training film on making a mechanical check on a truck to keep it safe and serviceable. Free loan—13, 20, 21, 25, 42. Rent—29.

Mind Your Manners—10 min—Brief lessons in advantages of driver courtesy for commercial vehicle drivers. Free loan—13, 20, 25, 42. Rent—29.

Pipeline on Wheels—26 min—Color film describing safe operation and construction of tank trucks. Free loan—9.

A Professional Portrait—22 min—Shows how the professional truck driver operates as compared with the amateur. Free loan—3, 12, 28, 42.

Split-Second Survival—10 min—Shows how a professional driver can prevent an imminent accident by reacting properly to the situation. Shows truck drivers what to do in such emergencies. Free loan—13, 20, 25, 42. Rent—29.

Tailgating—11 min—Describes danger of following too closely on the highway. Free loan—3.

They Drive in Safety—25 min—Color film on how to attain accident-free truck driving. Free distribution limited to 11 western states. Free loan—24. Rent—29.

Too Close for Comfort—8 min—Shows how tailgating causes accidents in truck driving. Free loan—11, 13, 16, 20, 21, 25, 42. Rent—29.

Too Fast for Conditions—9 min—Shows why legal speed limits are often too fast for safety in truck driving. Free loan—11, 13, 16, 20, 21, 25, 42. Rent—29.

The Truck and the Driver—10 min—Illustrates professional, safe truck driving practices. Discusses truck maintenance. Rent—29.

You're Driving 90 Horses—26 min—Color film demonstrating defensive driving techniques for light truck operators. Free loan—5.

What Happened?—10 min—Commercial driver training film on how

(TURN TO PAGE 235, PLEASE)

HOLLEY Carburetor Co.

NEWS for Fleet Operators

HOLLEY CARBURETOR COMPANY • VAN DYKE, MICHIGAN

More Economy at High Speeds With Holley 4-Barrel Carburetor

The new White Mustang engines feature the famous Holley 4-barrel carburetor (Model 2140-SG) with integral governor and automatically controlled secondary throttle plates.

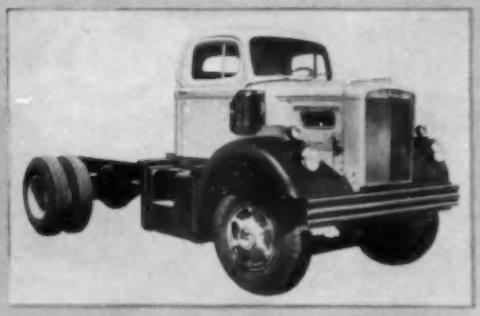
At low speeds the primary throttles are controlled by the accelerator, and secondary throttle plates remain closed.

As engine speed increases, air flow to the engine is increased through the primary bores. This creates a vacuum at the throat of the primary venturi. Thus, at high speeds the vacuum created by the increased air flow opens the secondary throttle plates increasing the carburetor capacity and automatically maintaining the proper fuel-air ratio.

This new, positive fuel metering system provides increased operating efficiency.



The Holley 2140-SG 4-barrel truck carburetor is the first such carburetor ever to be designed with an integral governor.



Capacity of induction system in the White engine has been increased by the use of a new water jacketed manifold and a new Holley 4-barrel truck carburetor.

New White "9000" Line Equipped With Holley Carburetors

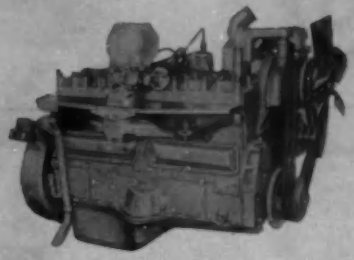
The White Motor Company has announced that its new "9000" line offers a choice of four new White Mustang gasoline engines with 145 h.p., 160 h.p., 200 h.p. and 215 h.p. ratings. The new engines are improved versions of the famous White Mustang design. The three larger engines feature the Holley 4-barrel truck carburetor (Model 2140-SG) with an integral governor.

Another significant feature of the new White "9000" line is the 90-inch dimension from front-of-bumper to back-of-cab. This shortened dimensional tractor can accommodate a 35-ft. high-cube trailer with a wide range of kingpin locations and remain within the 45-ft. overall length limit. The front axle, springs, steering gear and frame of this new White tractor can be tailored to handle loading up to 11,500 lbs. with complete safety.

Features of New Engine Provide Increased Power

In addition to the installation of the Holley 4-barrel carburetor on the larger sizes, the new White Mustang engine features an improved cooling system, a cylinder head (almost double the depth of the previous design), and an alloy steel crankshaft. Increased oil pressures have been achieved with a 40% larger-capacity oil pump. Another significant development is a manually controlled under-the-hood or outside carburetor induction system that has been installed with an oversized air cleaner.

These improvements will provide greater life and reliability of the Mustang engine, as well as increased power. The new design will also increase spark plug life.



One of the four new White Mustang engines available in the White "9000", rated at 145, 160, 200 and 215 horsepower. This is the 200 horsepower, 470A Mustang engine.

HOLLEY CARBURETOR COMPANY

11955 E. Nine Mile Road
Van Dyke, Michigan

FOR MORE THAN HALF-A-CENTURY—ORIGINAL EQUIPMENT MANUFACTURERS FOR THE AUTOMOTIVE INDUSTRY

T-5



GM
GENERAL MOTORS

GENERAL MOTORS LEADS THE WAY–



You can minimize downtime

in over-the-road service with Delco-Remy heavy-duty electrical equipment

Every unit in Delco-Remy's famous heavy-duty line is designed and built to take the day-in-day-out pounding of over-the-road operation . . . to give many thousands of miles of dependable service.

For example, Delco-Remy 5⅝-inch diameter heavy-duty D.C. generators include such long-life features as extra-large commutator and brushes (brush life of 100,000 miles is common), ball bearings, wick-type lubrication with oilers, and forced ventilation. These generators are available, with matching regulators, in a wide variety of voltage ratings and output capacities.

Other specially-designed Delco-Remy heavy-duty units include cranking motors, coils and other ignition components, and Delco long-life Extra-Duty batteries with rubber separators and Delcoloy grids.

For more dependable service with minimum downtime, specify Delco-Remy heavy-duty electrical equipment when you order new vehicles or modernize your present ones. Complete details on Delco-Remy heavy-duty electrical equipment are available through your nearest General Motors car or truck dealer, or the United Motors System.

DELCO REMY • DIVISION OF GENERAL MOTORS • ANDERSON, INDIANA

STARTING WITH **Delco-Remy** ELECTRICAL SYSTEMS



Body by Modey Body & Equipment Corp.
Buffalo, New York

- HINGES
- LATCHES
- DOOR IRONS
- DOOR CONTROLS
- SEAT IRONS
- LOCK HANDLES
- SEAT PEDESTALS
- REFRIGERATOR LOCKS
- PANEL DOOR LOCKS
- VAN BODY LOCKS
- SLIDING DOOR LOCKS
- LADDER HOLDERS
- ETC.



Body by Winter-Weiss Co.,
Denver, Colorado

EberHARDWARE

is Unexcelled for Extreme Wear

Van Trailer by Dorsey Trailers
Elba, Alabama



Fleet shop superintendents and truck fleet maintenance men alike prefer Eberhard truck body hardware. On new equipment and for the replacement of damaged or service worn hardware on trucks in the shop, it is unexcelled.

Ease of installation, simple maintenance and rugged serviceability are characteristic of the leading Ⓔ line.

Eberhard engineers will be pleased to offer assistance in solving any of your problems which involve the use of truck body hardware or which may require special designing.

Write for the NEW CATALOG

LONGRUN
TRUCK BODY AND EQUIPMENT ASSOCIATION

TRUCK BODY HARDWARE BY
EBERHARD
THE MOST COMPLETE LINE AVAILABLE

EBERHARD MANUFACTURING COMPANY
EVARTS AVE. • CLEVELAND 4, OHIO
DIVISION OF THE EASTERN MALLEABLE IRON COMPANY

Safety Films

Continued from Page 230

to gather facts at the scene of an accident. Free loan—13, 20, 21, 25, 42. Rent—29.

Wrong Side — Suicide — 10 min — Commercial driver training film on the hazards of crossing the centerline. Free loan—11, 13, 20, 21, 25, 42. Rent—29.

Fire Prevention and Control

Cause for Alarm—Shows how to control fires, how to turn in an alarm, how to meet an emergency situation and how various types of extinguishers are used. Rent—29.

Control of Flammable Liquids—18 min — Manufacturer's film showing methods of handling, storing and conserving flammable liquids. Free loan —34.

Fight That Fire—10 min—Color film shows techniques of fighting small fires with common types of hand extinguishers including soda ash, carbon tetrachloride, foam and pump. Free loan—10, 26.

Fire and How to Fight It—23 min —Color film shows how different classes of fires start, various types of portable extinguishers, and how to use them. Free loan—26.

Propane Fires — 25 min — Silent, colorfilm showing large scale tests on fires involving propane, gasoline and benzol under high pressure. Free loan —4.

Stop Fires—Save Jobs—18 min—Tells how fires start, how to report them and how to recognize fire hazards. Free loan—26.

Stop the Fire Thief—13 min—Illustrates recognition of fire hazards in handling and storage of flammable liquids, electrical equipment, welding, open heating equipment, smoking, and dirt and trash. Rent—29.

The Torch—10 min—Color, cartoon film on how carelessness causes fires. Free loan—26.

First Aid

First Steps in First Aid—30 min—Basic training film for beginners in first aid. Similar to "Help Wanted." Free loan—41.

Handle With Care—14 min—Color film demonstrating basic techniques of first aid. Free loan—1.

Help Wanted—30 min—Basic training film for beginners in first aid. Similar to "First Steps in First Aid." Free loan—41.

Minutes That Count, Part 1—30 min—Color film for training in first aid techniques. Covers arterial bleeding and dressing of cuts and open wounds. Free loan—37.

Minutes That Count—Part 2—30 min—Color film for training in first aid techniques. Covers dislocations, fractures, infections and transportation of wounded. Free loan—37.

Seconds Count—8 min—Describes Nielsen method of artificial respiration which has been adopted by the American Red Cross. Includes instruction on giving stimulants and protecting from shock. Free loan—1.

Shop and Dock Safety

The ABC of Hand Tools, Part 1—18 min—Animated, color film shows safe handling of such tools as hammers, screwdrivers, pliers and wrenches. Free loan—12.

The ABC of Hand Tools, Part 2—15 min—Animated, color film shows safe handling of such tools as files, saws, chisels, planes, drills and punches. Free loan—12.

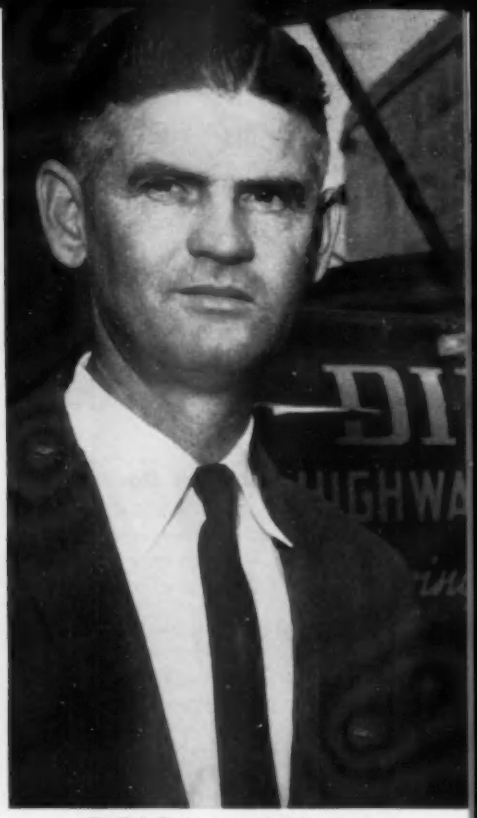
For Safety's Sake—15 min—Dem-

(TURN TO PAGE 238, PLEASE)





Mr. R. A. Goodling, President



Mr. N. L. Parks, Supt. of Maintenance

IN THE FRONT OFFICE . . . MAINTENANCE SHOP . . . AND ON THE HIGHWAY

Bendix-Westinghouse Air Brakes

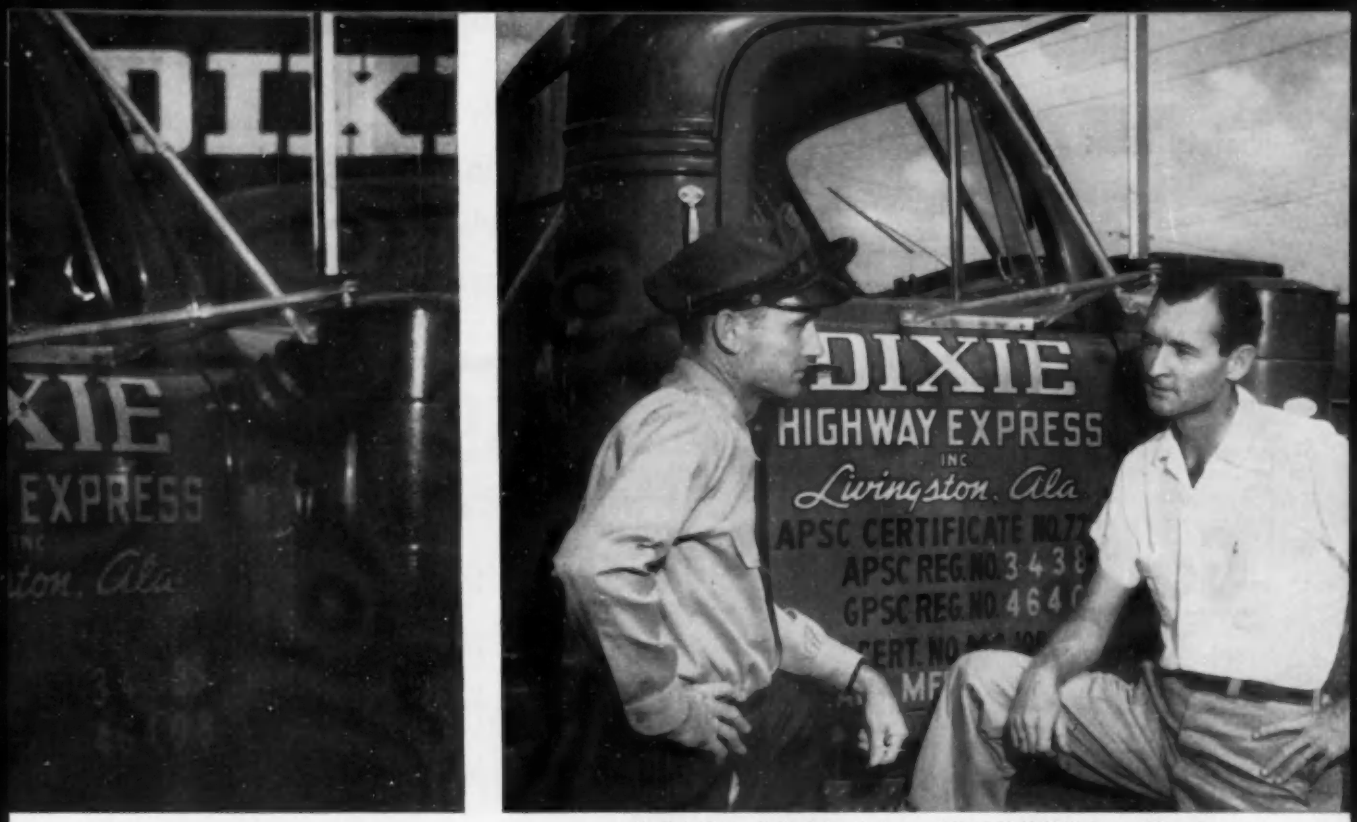
in time and money they give



Bendix-Westinghouse has produced over 1,500,000 compressors during the past 25 years—far more than any other manufacturer. This experience is your assurance of excellence. TU-FLO 400 model above is designed for the medium and heavyweight classes. Other Bendix-Westinghouse compressors are for the light and extra-heavy-duty classes.

Winning safety awards is a regular occurrence at Dixie Highway Express, Inc., of Meridian, Mississippi. In 1953-54, this big southern operation won the National Safety Award in the ten to twenty million mile group of the general commodity class. Other major safety awards were won in 1952, '53 and '54. In rolling up this remarkable safety record, Mr. R. A. Goodling, President, credits the ability of Dixie Highway Express drivers, the Dixie preventive maintenance system and Bendix-Westinghouse Air Brakes. "In fact", says Mr. Goodling, "these dependable brakes definitely increase the confidence and efficiency of our drivers, helping us to maintain better legal trip speeds with greater safety."

More trucks travel more miles with



Mr. F. L. Wilson (Left), Driver Trainer and Mr. J. K. McNeill, General Shop Foreman

can give you the same big savings

DIXIE HIGHWAY EXPRESS, INC.!

But, Bendix-Westinghouse Air Brakes pay off in other ways for Dixie Highway Express. To see how, take a look at these facts taken from the company records:

The system's Bendix-Westinghouse Air Brake equipped rigs roll up an annual total of *over 8,000,000 miles* at an actual compressor operating cost of *only $.00022 per mile* . . . they maintain an average brake lining life of *110,000 miles*, while stopping loads which average *48,000 pounds G.V.W.* . . . and they travel *140,000 miles* between compressor overhauls in accordance with the company's maintenance program!

While such a record is outstanding, it is actually just one of many. Literally thousands of the nation's successful truck operators have experienced similarly profitable results with Bendix-Westinghouse Air Brakes. Why not follow their lead—specify Bendix-Westinghouse on your next new truck order . . . or consult your nearest Authorized Bendix-Westinghouse Distributor about converting your present vehicles to air with handy field installation kits. Either way, you'll join Dixie Highway Express, Inc., and all the others in agreeing that Bendix-Westinghouse Air Brakes are truly tops in stops!

Bendix-Westinghouse than with all other air brakes combined!

Bendix-Westinghouse BENDIX-WESTINGHOUSE AIR BRAKES REG. U.S. PAT. OFF. **AIR BRAKES**

BENDIX-WESTINGHOUSE AUTOMOTIVE AIR BRAKE COMPANY • General Offices and Factory—Elyria, Ohio • Branches—Berkeley, Calif. and Oklahoma City, Okla.

Safety Films

Continued from Page 235

onstrates safe use of power driven, hand tools. Rent—29, 36.

Freight Handling Safety—11 min—Shows freight loading hazards, how to handle dock plates, how to lift, carry and pile, and how to use hand trucks. Free loan—42. Rent—29.

The Grinding Wheel, Its Care and Use—17 min—Color film shows safety in use and operation of grinding wheels. Free loan—30.

Grinding Wheel Safety—20 min—Color film covers grinding wheel safety, principal causes of wheel breakage and need for proper guards. Free loan—30.

Partners in Production—17 min—Color film on industrial and shop safety. Shows why safety is needed, methods of safe lifting and need for keeping tools in good condition. Free loan—1.

Safety for Welders—7 min—Illustrates protective clothing and equipment for welders to prevent eye injuries and metal fume poisoning. Free loan—42. Rent—17, 32.

Safety Saves—30 min—Illustrates the "do's and don'ts" of safe driving fork lifts, tow tractors and hand trucks. Also shows safe handling of cargo. Free loan—7.

Use and Care of Chisels—12 min—Shows accident hazards to be avoided with proper use and care of chisels. Free loan—35. Rent—29.

Use and Care of Hacksaws—18 min—Shows accident hazards to be avoided with proper use and care of hacksaws. Free loan—35. Rent—29.

Use and Care of Hammers—11 min—Shows accident hazards to be avoided with proper use and care of hammers. Free loan—35. Rent—29.

Use and Care of Pliers and Screwdrivers—17 min—Shows accident hazards to be avoided with proper use and care of pliers and screwdrivers. Free loan—35. Rent—29.

Use and Care of Punches, Drifts and Bars—14 min—Shows accident hazards to be avoided with proper use and care of punches, drifts and bars. Free loan—35. Rent—29.

Use and Care of Wrenches—20 min—Shows accident hazards to be avoided with proper use and care of wrenches. Free loan—35. Rent—29.

Welding, the Safe Way—18 min—Training film for new welders illustrates safe working conditions for most welding operations. Rent—29.

SOURCE LIST

NUMBERS refer to the numbers at the end of the description of each film. Where more than one source is given, write to the closest.

1. Affiliated Aetna Life Cos.
   Motion Picture Bureau
   151 Farmington Ave.
   Hartford 15, Conn.
2. American Transit Assn.
   292 Madison Ave.
   New York 17, N. Y.
3. American Trucking Assns., Inc.
   Public Relations Dept.
   1424 Sixteenth St., N.W.
   Washington 6, D. C.
4. Ansul Chemical Co.
   Fire Extinguisher Div.
   Marinette, Wis.
5. Bell Telephone Co.
   Contact local office.
6. Bruce Dodson & Co.
   2800 Wyandotte St.
   Kansas City 10, Mo.
7. Clark Equipment Co.
   Industrial Truck Div.
   Battle Creek, Mich.

(TURN TO PAGE 240, PLEASE)

Good Cooler Design



Note the compact Model TFD 15 hp. 2-cylinder Wisconsin Engine installation.

Includes WISCONSIN HEAVY-DUTY *Air-Cooled* ENGINES

Building well-engineered refrigeration units is a job that calls for dependable Lugging Power from the engine, as supplied by the model TFD 15 hp. 2-cylinder Wisconsin Heavy-Duty Air-Cooled Engine which powers the above installation.

Engineers recognize the value of the heavy-duty performance features built into every Wisconsin Engine . . . including fool-proof air-cooling, thrust-absorbing tapered roller bearings and many others. In addition, this engine is also equipped with stellite valves and valve seat inserts, adding greatly to engine life and minimizing servicing. Rated capacity of the Wisconsin-powered cooler illustrated above is 30,000 BTU at 30 degree refrigerant, with 100 degree F. ambient and 10,000 BTU, at a minus 20 degree refrigerant, with 100 degree ambient air.

Power to fit the *machine* and power to fit the *job* best sums up Wisconsin Heavy-Duty Air-Cooled Engine performance. Write for more information about all 4-cycle single-cylinder, 2-cylinder and V-type 4-cylinder types, 3 to 36 hp.

Power TO FIT THE JOB — Power TO FIT THE MACHINE

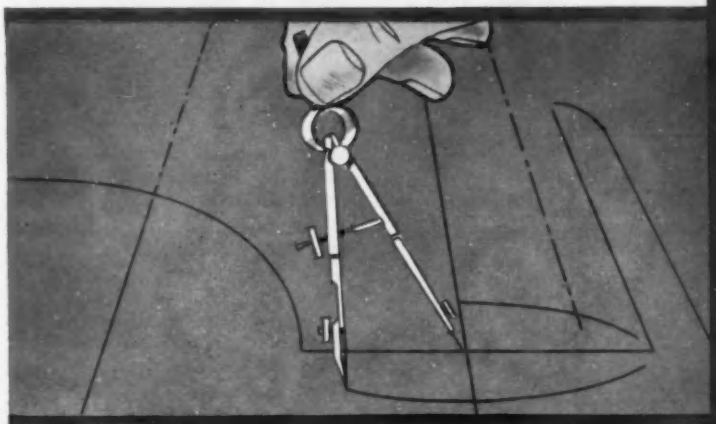
MOST H.P. HOURS

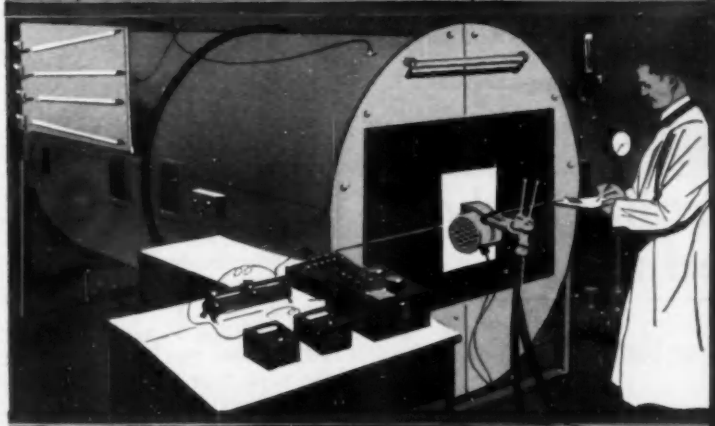
WISCONSIN MOTOR CORPORATION

World's Largest Builders of Heavy-Duty Air-Cooled Engines

MILWAUKEE 46, WISCONSIN

Keep your truck and driver safe with a heater designed for trucks







Do the truck heaters in your fleet give you seasonal "headaches"? Do they measure up to all your requirements for safety, comfort and dependability? If not, it will pay you to check into Evans high-performance truck heaters. ***Here's why...***

Designed for trucks by heater engineers

Evans heater engineers have had years of experience in designing heaters specifically for trucks. They know every different truck requirement in heater installation, output, construction and heavy-duty performance. They design heaters which provide full-balanced comfort, fresh-air ventilation, quick defrosting and de-fogging in any kind of weather. So, for safety's sake, insist on an *Evans* designed truck heater!

Rigidly tested in Evans' modern laboratory

Evans has one of the most extensive, most complete testing laboratories of any independent truck heater manufacturer. Each heater designed for trucks . . . plus every component . . . must pass every one of Evans' rigid specifications with flying colors before it's approved for manufacture. And Evans backs its testing policy to the hilt with a parts "repair or replace" warranty on every heater, good for one year or 50,000 miles, whichever occurs first.

A heater to fit every job, every type of truck

Evans offers you a quality-built heater for every kind of truck you operate in any kind of service. There are Evans heaters for all sizes of delivery trucks, for over-the-road haulers, off-road models, cab-over-engine types and every make of truck-tractor. Put *Evans* heat in your fleet and you reap dividends from greater safety for truck and driver, longer service life, more driver comfort, lower maintenance costs and fewer "driver complaints." Let us help you solve your truck heating problems once and for all. Write today to Evans Products Co., Dept. Q-4, Plymouth, Mich.

Free Heater Catalog! At no cost to you, we'll be glad to send our Evans Truck Heater Catalog. It illustrates and gives complete specifications on our line of Evans truck heaters. Write: Evans Products Company, Dept. Q-4, Plymouth, Mich.

REGIONAL REPRESENTATIVES: Cleveland, Frank A. Chase • Chicago, R. A. Lennox Co., Inc. Detroit, Chas. F. Murray Sales Co. • Allentown, Pa., P. R. Weidner.

EVANS

EVANS PRODUCTS COMPANY

also produces: Evanite battery separators; railroad loading equipment; bicycles and velocipedes; ® Evaneer fir plywood.

Safety Films

Continued from Page 238

8. The Distributors Group, Inc.
   756 Peachtree St.
   Atlanta, Ga.
9. The duPont Co.
   Petroleum Chemical Div.
   Rockefeller Center
   Suite 1810, RKO Bldg.
   New York 20, N. Y.
10. Employers Mutual Liab. Ins. Co.
    407 Grant St.
    Wausau, Wis.
11. Farm Bureau Mutual Auto Ins. Co.
    Safety Dept.
    246 North High St.
    Columbus 16, Ohio.
12. General Motors Corp.
    Department of Public Relations
    Film Section

    New York City and Long Island
    1775 Broadway
    New York 19, N. Y.

    Eastern States
    General Motors Bldg.
    Detroit 2, Mich.

    Western States
    508 San Francisco Bank Bldg.
    405 Montgomery St.
    San Francisco 4, Cal.
13. Hardware Mutuals Ins. Cos.
    200 Strongs
    Stevens Point, Wis.
14. Univ. of Illinois
    Audio-Visual Aids Service
    Div. of Univ. Extension
    Champaign, Ill.
15. Indiana Univ.
    Audio-Visual Center
    Div. of Adult Education
    1804 East 10th St.
    Bloomington, Ind.
16. Iowa National Mutual Ins. Co.
    Cedar Rapids, Iowa.
17. State Univ. of Iowa
    Bureau of Audi-Visual Inst.
    Extension Div.
    Iowa City, Iowa.
18. Univ. of Kansas
    Bureau of Visual Instruction
    Lawrence, Kan.
19. Kunz Motion Picture Service
    1319 Vine St.
    Philadelphia 7, Pa.
20. Liberty Mutual Ins. Co.
    175 Berkeley St.
    Boston 17, Mass.
21. Lumbermans Mutual Casualty Co.
    PSFS Bldg., 12th and Market Sts.
    Philadelphia, Pa.
22. Market Service, Inc.
    90 John St.
    New York 7, N. Y.
23. Modern Talking Picture Service
    45 Rockefeller Plaza
    New York, New York.
24. Motor Truck Assn. of Southern Cal.
    605 West Seventh St.
    Los Angeles, Cal.
25. National Assn. of Automotive Mutual Ins. Cos.
    20 North Wacker Drive
    Chicago 6, Ill.
26. National Board of Fire Underwriters
    Film Library

    East of Rocky Mts.
    Bureau of Communication Research
    13 East 37th St.
    New York 17, N. Y.

    West of Rocky Mts.
    Merchants Exchange
    San Francisco 4, Cal.
27. National Dairy Products Corp.
    Safety Dept.
    260 Madison Ave.

(TURN TO PAGE 242, PLEASE)

Now-Increase your payload 2,500 POUNDS with this



Tandem axle trailer — 20 cu. yd. capacity.

PENN Aluminum Trailer Body and front mounted hoist!

Haul more coal, lime, sand, gravel, asphalt, cinders, fertilizer and bulkgrain.

● Heavier payloads and increased profits result when you haul in Penn Aluminum Bodies. Lighter in weight these aluminum bodies are as sturdy and strong as conventional bodies. Gasoline consumption and tire wear are lessened by the reduced body weight. Body, chassis and hoist as illustrated weigh 9200 pounds as compared with 11,700 pounds for a like steel body—a weight savings of 2500 pounds. On larger bodies the weight advantage is even greater.

PENN FRONT-MOUNTED HOISTS ARE . . .

LIGHTER — because of the single hoist and the fewer parts required for its installation.

EFFICIENT — it places more weight on the tractor axle and less on the trailer chassis axle.

SAFER — all body overhang is eliminated since the load is lifted from the front—greater stability is assured. When in use, this hoist has proved to be more than 95% safer than other types of hoist installations.

ECONOMICAL — the single hoist requires less parts and maintenance.

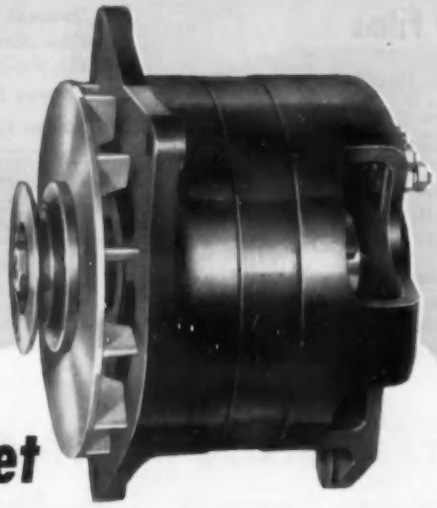
Your Inquiries are welcome

Truck Body Specialists with 22 years experience in the use of telescopic hoists

PENN BODY DIVISION HOCKENSMITH CORPORATION

PENN, PA. Call: Jeannette, Pa., LAfayette 3-5401 . . . Pittsburgh, Electric 1-1242

Leece-Neville



How to keep your fleet *on* the job and *out* of the shop

LEECE-NEVILLE STANDARD ALTERNATORS

1. . . Produce all the electric power your units need, eliminate downtime.

2. . . Have unequaled reliability, long life, low maintenance.

3. . . Cost less than "extra" output d.c. generators.

A RIGHT SIZE L-N ALTERNATOR FOR EVERY NEED

For 6 volt systems capacities range from 55 amps to 95 amps. Alternators from 30 to 180 amps are available for 12 volt systems. Also for 24 and 32 volt vehicles. L-N Alternators weigh much less than comparable d.c. generators.

SINCE 1946 Leece-Neville Alternators have been cutting maintenance and operating costs on thousands of trucks, passenger cars and off-highway units. Why not let your nearby friendly L-N Distributor make a trial installation on one of your vehicles? Call him in today . . . or write The Leece-Neville Company, Cleveland 3, Ohio.

YOU CAN RELY ON Leece-Neville

Automotive Electric Equipment Since 1909

TRUCK • BUS • DIESEL • INDUSTRIAL • PASSENGER • RAILROAD • MARINE • OFF-HIGHWAY



ALTERNATOR SYSTEMS · D C GENERATORS · CRANKING MOTORS · REGULATORS · SWITCHES · SMALL MOTORS

Safety Films

Continued from Page 240

New York 16, N. Y.
(or contact local division of National Dairy Products Corp.—Kraft, Sealtest, Breakstone, Sugar Creek Creamery.)

28. National Highway Users Conference
National Press Bldg.
Washington 4, D. C.
29. National Safety Council
Film Bureau
425 North Michigan Ave.
Chicago 11, Ill.
30. Norton Co.
Publicity Dept.
Worcester, Mass.
31. Univ. of Oklahoma
Educational Materials Service
Extension Division
Norman, Okla.
32. Princeton Film Center
Princeton, N. J.
33. Progressive Pictures
6351 Thornhill Drive
Oakland 11, Cal.
34. The Protectoseal Co.
Sales Department
1920 South Western Ave.
Chicago 8, Ill.
35. Proto Tool Co.
2209 Santa Fe Ave.
Los Angeles 54, Cal.
36. Sarra, Inc.
16 East Ontario St.
Chicago 11, Ill.
37. Standard Oil Co. of Cal.
225 Bush St.
San Francisco, Cal.
38. Superior Coach Corp.
Sales Promotion Dept.
Lima, Ohio.
39. Syracuse Univ.
Educational Film Library
Collendale near Lancaster
Syracuse 10, N. Y.
40. Univ. of Tennessee
Div. of Univ. Extension
Univ. Film Library
Knoxville, Tenn.
41. U. S. Bureau of Mines
Graphic Services Section
4800 Forbes St.
Pittsburgh 13, Pa.
42. Utica Mutual Ins. Co.
First National Bank Bldg.
Utica, N. Y.
43. Commonwealth of Virginia
State Board of Education
Film Production Service
Richmond 16, Va.

Here's trucking *AUTOMATION* that lets you combat High Cost Hauling

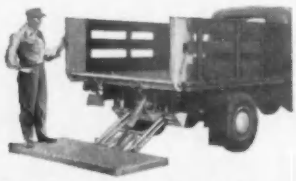
Cost saving way to handle bulky items such as bakery goods, candy, dynamite, glass, laundry, groceries, appliances, etc. Newly developed skids, pallets, tote boxes, metal containers, hampers, baskets, racks, etc. can be used for "bulk" loading.



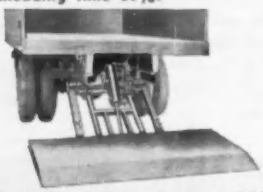


ANTHONY LIFT GATES

FOR ¾ TON and Larger Trucks and Semi-Trailers



Model No. 144 handles loads up to 1000 lbs. Cuts loading and unloading time 50%.



Model No. 145 handles up to 2000 lbs. on 1½-Ton and larger trucks and semi-trailers.

Model No. 146 handles up to 4000 lbs. on heavy trucks and semi-trailers.

If high freight rates and costly delivery services are cutting a swath out of your profit picture, here are five ways you can offset them.

1. Speed up deliveries.
2. Develop faster, easier ways of loading and unloading trucks.
3. Systematize handling of bulky, awkward, heavy shipments.
4. Prevent damage to goods, yet make it easier and safer for drivers to handle most shipments alone.
5. Help drivers contribute to the satisfaction of the receiver.

All of these advantages are yours when you install Lift Gates on your trucks. We will be glad to recommend the systems, the size and type of Gate best suited for your work.

Write, wire or call us today—no obligation. One of our representatives is nearby. Dept. 5651.

ANTHONY LIFT GATE HYDRAULIC

ANTHONY COMPANY
Streator, Illinois

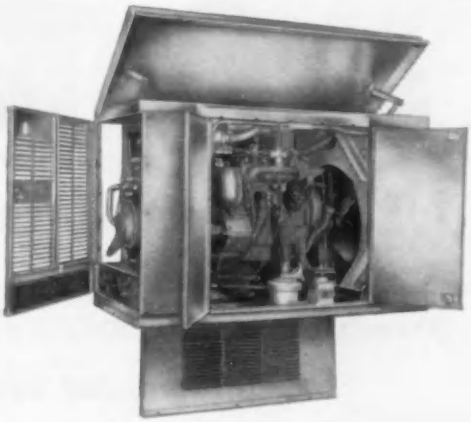
Safe Three on Double Bottoms



A. C. Scott, left, president of The Geo. F. Alger Co., Detroit, congratulates three of his top drivers, they are (to right of Scott) Owen Winn, Harold Harris and William Carothers. They have each been with Alger 30 years, have a total no-accident record of 58 years, 6,800,000 miles. Carothers drives a bulk-cement double-bottom in Detroit, has a 15-year no-accident record. Winn, like Carothers, drives a double-bottom bulk-cement rig. His record is a 14-year one. Harris had an accident his first year with Alger and none since to rack up a 29-year no-accident record. He drives a double-bottom between Detroit and Grand Rapids.

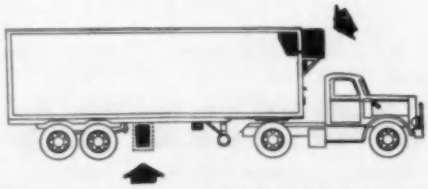
Nobody but . . . Carrier TROPIC-AIRE

. . . offers you a road-proven trailer refrigeration unit



Warranted for a full year!





EITHER FRONT OR UNDERSLUNG MOUNTING

TROPIC-AIRE, INC., 5201 W. 65th Street, Chicago 38, Illinois
Tropic-Aire, Inc. is a subsidiary of McGraw Electric Co.

Carrier TROPIC-AIRE

N·A·P·A

"Parade of Parts"

FOR CARS • TRUCKS • TRACTORS—ALL MAKES • ALL AGES

Nationally Advertised Brands of Genuine Quality

All Identified by the N·A·P·A Seal

All Quickly Available to You from One Friendly, Cooperative Source—Your N·A·P·A Jobber



● Your N·A·P·A Jobber has the most complete array of nationally advertised quality products ever available from one nearby source of supply. Many of these lines are widely used as original equipment. In every case, products which bear the N·A·P·A Seal are recognized by automotive engineers as meeting the highest standards of quality.

During the N·A·P·A nation-wide "Parade of Parts," *your* N·A·P·A Jobber will join with thousands of others to spotlight the unparalleled service he offers, as part of the nation's largest independent parts distributing system.

It is a service which can save you time—and *needless expense*—when you concentrate your buying with him. He can replenish his own stock overnight—or in record time obtain the seldom-needed parts no jobber can afford to stock—from the nearest of the 43 N·A·P·A Warehouses where master stocks of all these lines are available. There is no waiting for shipment from distant factories.

Your N·A·P·A Jobber is a Good Man to KNOW!

National Automotive Parts Association, Detroit, in behalf of the thousands of independent

N·A·P·A JOBBERS

who supply the automotive repair trade from coast-to-coast with these—and many other—nationally advertised brands of quality automotive parts and supplies.

Allied A.P.C.
Valves, Valve Guides and Piston Pin Bushings

American Brakeblok
Brake Lining—Clutch Facings

BALKAMP
Parts for Ford, Chevrolet, Plymouth and all popular cars

Belden
Automotive Wire and Cable

B-K Huffman
Service Station Equipment, Oil Measures, Watering Cans, Funnels etc.

B-K
SERVICE PRODUCTS
Tire & Tube Repair Materials • Radiator and Gas Tank Caps • Universal Grease Fittings • Washing & Polishing Aids, etc.

BRIDGEPORT
Tire Valves and Accessories

BRIGGS
Hydraulic Shock Absorbers

BROWN LIPE
Transmissions and Clutches

CELORON
Timing Gears

CLEVELAND
Universal Joints • Universal Joint Kits • Drive Shaft Assemblies

DETROIT
Universal Joints, Kits, Drive Shaft Assemblies

DITTMER
Transmission Gears and Shafts

DUCKWORTH
Automotive Timing Chains

ECHLIN
Ignition Parts

Federal
Ball Bearings

FLEET
Hydraulic & Mechanical Jacks

Allied GRAPHO
Water Pumps and Water Pump Parts

Haartz-Mason
Friction Tape • Rubber Tape
Plastic Tape

K. O. Lee
Valve Seat Inserts

MARTIN-SENOUR
Automotive Finishes, Lacquers, Synthol Enamels, Thinners, Reducers, Blacks, Undercoats, Specialties

MicroTest
Drive & Pinion Gears • Axle Shafts
Differential Parts • Flywheel Gears

Modac
Automotive and FHP "V" Belts
Radiator Hose • Heater Hose • Air Hose
Service Station Hose • Splash Guards

Allied Monmouth
Wheel Suspension Parts Coil Springs, Steering Parts, King Bolt Sets, Shackles, Ball-Joint Suspension Replacements

Monmouth
Motor Bearings and Bushings
Clutch Plates

New Britain
Professional Hand Tools and Automatic Transmission Tools

OILOK
Treated Paper Packing

Allied PRECISION
"Micro-Matched" Piston Pins

Prospect
Custom-Engineered Rubber Contour-Mats

PURITAN
Hydraulic Brake Fluid
Shock & Knee Action Oil • Gasket Sealing Materials • Hydraulic Brake-Flushing Fluid
Hydro-Lectric Fluid • Penetrant

RARITAN
Roller Bearings

Allied RAYMOND
Valve Springs, Valve Keys
Expansion Plugs and Lock Rings

ROCKFORD
Fasteners, Screws, Bolts & Nuts

Soundmaster
Mufflers, Exhaust and Tail Pipes

Spicer
Universal Joints, Drive Lines & Kits, Power-Take-Offs & Power-Take-Off Joints, Monmouth Clutches

STANDARD
Oil Seals and Grease Retainers, Engine Bearing Shims, Laminated Shims, Shim Stock

TALENT
Portable Power Tools

Thomson
Thermostats

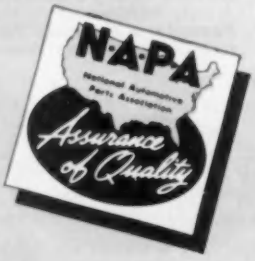
TRICO
Vacuum Operated Safety Products

UNITED PARTS
Fuel Pump—Hydraulic Brake, Speedometer and Brake Cable

VISALL
Lighting and Safety Equipment

Allied WISCONSIN
Pistons, Cylinder Sleeves, and Sleeve Assemblies

ZOLLNER
Heavy Duty Pistons



"Bigger Pay Loads"



with FOSTER-BUILT
DRY ICE BUNKERS

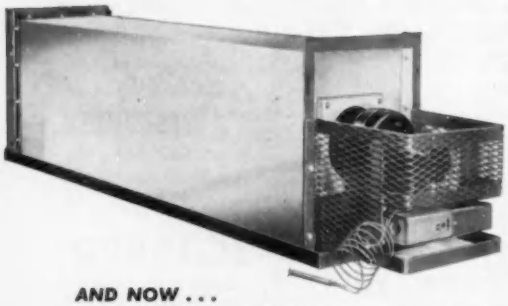
Just look at what users have to say:

"Since we installed Foster-Built Bunkers in our fleet, our profits have increased steadily, because our payloads are bigger. NOW we get more efficient, low-cost service than ever before. Our trucks are leased from* Hertz Stations, Inc., and savings in our operation are a 'must.' " S. A. Alexander, President, South Chicago Packing Company, Chicago.

*"We have Foster-Built Bunkers in many of our trucks and have found them simple to install, and virtually no maintenance is required . . . which is important in a large truck rental business." Joseph Stedem, Executive Vice-President in Charge of Sales, Hertz Stations, Inc., Chicago.

Foster-Built receives letters like these every day from satisfied users, telling how much they like the efficient, reliable truck refrigeration that Foster-Built Bunkers give them.

LOW COST TRUCK REFRIGERATION



The Frigi-Matic Temperature Control is also available as an accessory for installation with your present Foster-Built Bunker. It will pay for itself in a short time!

AND NOW . . .

Here's another Foster-Built First in truck refrigeration . . . the New FRIGI-MATIC Automatic Temperature Control Bunker! Here's the answer for increased payloads and profits. Frigi-Matic positively maintains constant temperatures, and has a range from 0° to 70°F.

Get the facts: Phone MOnroe 6-6880

Foster-Built
DRY ICE TRUCK BUNKERS

Foster-Built Bunkers, Inc.
Dept. CCJ-4, 757 W. Polk Street, Chicago 7, Ill.

Gentlemen: Please send information on:
- ☐ Frigi-Matic Dry Ice Bunker
- ☐ Dry Ice Warehouse List
- ☐ Complete line of Foster-Built Bunkers

Name .....
Address .....
City ..... Zone ..... State .....

Fleet Course Calendar

HERE is an up-to-date calendar of fleet training courses for 1956. For complete addresses to write to for further information about the courses listed, see the Fleet Course Directory appearing in the November, 1955, issue, page 300.

Driver Training

North Carolina State College (four week course beginning on the dates given)—Apr. 30, May 28, July 2, July 30, Sept. 3, Oct. 1, Oct. 29 and Nov. 26.

Driver Trainer

Pennsylvania State University — April 16-20.

University of Kansas—July 30-Aug. 3.

Effective Fleet Operation

Unless otherwise noted, these courses begin in the dates given and meet once a week in the evening for eight to 10 weeks.

University of Wisconsin — Spring (Milwaukee).

University of Tennessee—Spring (Knoxville).

University of Akron (Ohio)—Spring.

Southern Methodist University (Texas)—Spring (Dallas).

Fleet Maintenance

New York University—Apr. 30-May 4.

Rutgers University (N. J.)—Oct. 1-5.

University of Alabama—Oct. 7-11.

Fleet Supervisor

Northeastern University (Mass.)—Apr. 23-27.

Oregon State College—Apr. 30-May 4.

Northwestern University (Ill.) — June 18-22.

University of Virginia—June 18-22.

Pennsylvania State University — Sept. 10-14.

Purdue University (Ind.) — Sept. 17-21.

University of Minnesota—Oct. 15-19 (Minneapolis).

Supervisor 2-Day Conference

Pennsylvania State University — May10-11.

Terminal Management

Pennsylvania State University — Oct. 9-11.

Top Management Conference

Pennsylvania State University — Sept. 27-28.



NYLON CORD TRUCK TIRES SAVE YOU MONEY 5 WAYS

1. NYLON MEANS SAVINGS ON TIRE REPAIRS. By guarding against every major cause of tire failure—flexing, moisture, heat and impact—nylon cords save you service charges and tire repair costs.

2. NYLON MEANS FEWER ROAD DELAYS. Nylon cord tires help you maintain strict schedules and on-time deliveries, save drivers' time and service costs.

3. NYLON MEANS MORE OVER-ALL MILEAGE. Tough nylon cords mean fewer tire failures . . . higher average tire mileage.

4. NYLON MEANS LESS TIRE INVENTORY. With nylon, you can reduce your tire reserve . . . free your capital for other business needs. Fewer failures and more mileage per tire mean you need fewer spares on hand . . . fewer tires per year.

5. NYLON MEANS MORE RETREADS. Because their casings are tougher, nylon cord tires can be retreaded again and again. And every retread stretches your tire dollars . . . brings down costs per mile.

NYLON CAN CUT YOUR YEARLY TIRE COSTS. You'll get more miles per dollar, more profit per load . . . when your trucks roll on nylon cord tires. Ask your dealer about nylon cord tires today. Du Pont makes the tough, long-lasting yarns that are used by rubber companies to make the tires that give extra protection against tire failure. Du Pont does not make tires.

DU PONT
REG. U.S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING
. . . THROUGH CHEMISTRY



NOW, IN PASSENGER-CAR TIRES, TOO . . . THE STRENGTH AND TOUGHNESS OF NYLON . . . FOR UTMOST SAFETY, SUREST PROTECTION AGAINST TIRE TROUBLE



Magnesium Cuts Route Truck Weight

A NEW LINE of light-weight multi-stop bodies, using large quantities of magnesium sheet and extrusions is now being marketed by Metropolitan Body Co., a subsidiary of International Harvester.

The "Metro-Lite" bodies weigh approximately 1200 lb and are about 780 lb lighter than corresponding models in Metro's regular line of steel bodies. They are available in 115, 122 and 134-in. wheelbases.

Up to 200 lb Lighter

Three models are available. The 9 ft 8-in. unit has 352 cu ft capacity; the 10 ft. 8-in. model holds 390 cu ft; and the 12 ft 8-in. model has a 466 cu-ft capacity. This compares with 306, 340 and 416 cu-ft capacities for Metro's corresponding flatback steel bodies. Metro estimates the new bodies will sell for about the same price as all-aluminum bodies and will weigh 180 to 200 lb less.

About 400 lb of magnesium sheet and extrusions are used on the bodies. The entire framework is extruded magnesium. Most thick-gaged panels are in magnesium sheet, the balance in aluminum. The specific magnesium parts are upper side panels, floor center panel, side roof rails, rub rails, side and rear door posts, rear door header and floor cross sills. Door and roof panels are aluminum.

Also Uses Plastic Parts

Fiber glass reinforced plastic is used for the front and rear roof caps and front quarter panels, as shown in the illustation. Advantages of this material include the following: it can be tooled into complicated shapes at low cost; it is flexible; light in weight, has very strong resistance to corrosion; it takes a good finish; and it can be easily repaired when damaged.

The Metro-Lite has only one-third as many parts as a steel body with similar outside measurements. It uses the monocoque, or thick-skinned design. By using ⅛-in sheet compared to 1/32 to 1/16-in. used in the conventional body, necessary rigidity is achieved without the usual supporting side and front framework. Side posts shown in the illustration serve as door stops, but are not needed to support the side panels.

Metro is geared for quantity production of the light-weight units, but steel bodies will continue to be the company's chief business.



MORE THAN 1,000,000 DIFFERENT SPECIES OF *Bugs* ON EARTH

But Not One in the BARTLETT HYDRAULIC 5th WHEEL

14" & 24" Lifting Heights

Reinforced to Carry Any Weights with Little or No Service

Less Parts to Lubricate

Pays for Itself by Labor Saving in 90 Days

Saves Repairs to Trailers

For Busy People Who Want to Cut Costs NOW! Unlimited Lifting Capacity for Piggy-Back Operations. Now Used by All Truckers, Railroads, Excavators. Roller Unloading.

"RECOGNIZED AS THE BEST"



ADAPTER TO FIT FULL AUTOMATICS

CONTROLS • VACUUM OR AIR OPERATED

IT CAN BE INSTALLED BY A LOCAL DEALER IN YOUR CITY OR IN YOUR OWN SHOP

PRINTS FURNISHED FOR INSTALLATION

BARTLETT TRAILER CORPORATION

3080 ARCHER AVE. • CORNER OF ASHLAND • CHICAGO 8 • VIRGINIA 7-1160

an important new **PLUS FACTOR** of the Motorola Twin-V Radiophone



MOBILE

TRANSISTORIZED DYNAMIC MICROPHONE

Unprecedented voice clarity for mobile radio transmission

- true moving coil dynamic characteristics
- transistor preamplifier built-in
- printed circuit
- all-metal housing
- retains popular size and shape
- superior voice reproduction
- unexcelled reliability.

Twin-V RADIOPHONE

The new transistorized dynamic microphone, or the dual purpose dynamic "Speaker-Mike," is *optionally* available with Motorola's "TWIN-V" Radiophone—the world's finest FM 2-way mobile radio unit . . . incorporating many *exclusive* features, including universal 6/12 volt operation, Sensicon receiver, Permakay Filter, and Instantaneous Deviation Control.

Motorola's new transistorized dynamic microphone provides *mobile* transmission quality comparable to that of the base station. Unexcelled voice clarity, crispness, and intelligibility are yours in this newest Motorola *first*.

Also available as *"SPEAKER-MIKE"*



The new microphone can be furnished as a dual-purpose "Speaker-Mike" which functions as a full output communications-type *loudspeaker*, as well as a dynamic microphone. It can be conveniently mounted, or held near the operator's ear to overcome high ambient noise levels.

You can have either of these outstanding microphones as replacement items, or as *optional* equipment with new Motorola "TWIN-V" Radiophones. The transistorized, dynamic microphone, with its *popular palm size*, is directly interchangeable with Motorola carbon models now in use. The "Speaker-Mike" version requires a simple modification kit for replacement use in existing equipment.

Immediately available. Write, phone or wire today, or contact your local Motorola Radio Communications Engineer.

MOTOROLA COMMUNICATIONS & ELECTRONICS, INC.

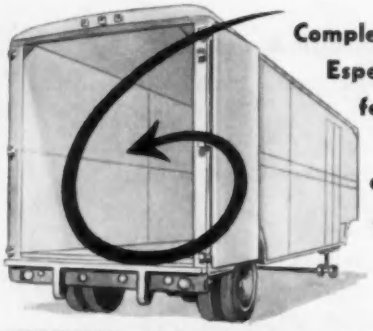
A SUBSIDIARY OF MOTOROLA, INC., 4501 AUGUSTA BOULEVARD, CHICAGO 51, ILLINOIS

Low cost Espey® Trailerliner

MAKES OLD TRAILERS BETTER THAN NEW...

MAKES NEW TRAILERS BETTER THAN EVER...

✓ **Leading Independent Laboratory tests indicate Espey Trailerliner increases tensile strength of ¼" plywood by 1485 pounds per square inch— an increase of 50% in strength!**



Complete trailer can be Espey lined in just a few hours—spray it on or paint it on in a choice of attractive colors.

Here are just a few of the advantages to truckers—shippers:

- **Prolongs trailer life** — provides a *permanent* armor-like surface
- **Protects lading** — no splinters or rough edges
- **Increases refrigerated trailer efficiency** — keeps insulation bone-dry — moisture from steam cleaning or hosing can't penetrate Espey. It's a near-perfect seal.
- **Forms an *inseparable* lamination much stronger than wood** — Seams, joints, corners are sealed; warping and separation prevented.
- **Moisture-free, vermin-proof** trailers are *completely* safe for edible lading. Espey is odorless and will not absorb or retain odors.
- **Proven in the toughest kind of service** ... A fine *investment* in protection for equipment *and* shipments.

Write for Free demonstration plan

SPRING PACKING CORPORATION—Dept. 4-10
332 S. Michigan Avenue, Chicago 4, Illinois

☐ Send me information about your Free Demonstration Plan
☐ Send me detailed literature about Espey Trailerliner

Name_____ Position_____

Company_____

Address_____

City_____ State_____

Fleetman's Library

Continued from Page 56

Tractor dimensions, weights and features of the Model Nos. T-47, T-647 and TS-647 over-the-road 4-wheel drive tractors made by Four Wheel Drive Auto Co. are given in this concise booklet you can get by circling L 5 on the postcard on page 52.

Converter dolly to make semi-trailers into full trailers featuring synthetic rubber "Q" rings instead of springs is described in a new folder from A. O. Smith Corp. Circle L 6 on the postcard on page 52 for your copy.

Wheels—truck, trailer and bus—made by The Budd Co. are described in a new folder available by circling L 7.

Masking chart illustrates use of Minnesota Mining and Mfg. Co. masking tape in masking automobiles for repainting. It illustrates 16 different applications. For your free copy, circle L 8 on the postcard on page 52.

Engine hour meters, both direct-reading and pointer-reading, made by John W. Hobbs Corp. are illustrated and described in a new brochure you can get by circling L 9 on the postcard.

Steel platform bodies in 12 to 16-ft body lengths and featuring distortion-free body floor surface, fully enclosed reinforced stake pockets and recessed stake pocket lips are covered in this new catalog from Galion Allsteel Body Co. Circle L 10 on the postcard for your free copy.

Trailers—low bed, tilt and flat deck auxiliary and pole—made by Talbert Trailers are fully described from suspension to construction in this new catalog you can get by circling L 11 on the postcard on page 52.

Blind fastening with a new "pop" rivet developed by Rivet Division, United Shoe Machinery Co. can be applied to body and other vehicle shop work. For a free folder describing the new fasteners, circle L 12 on the postcard.

Air compressors covered in this new catalog from Kellogg Division, American Brake Shoe Co. go from ⅓ to 1¼ hp in the 125 to 150 psi range. Circle L 13 on postcard for your free copy.

Sheet metal tools, including three compound leverage shears for straight, right and left cuts, are described in this new catalog from Niagara Machine & Tool Works. Circle L 14 on the postcard on page 52 for your copy.

Camshaft bearings made by Dura-Bond Engine Parts Co. are colorfully described in this adaptation of a pocket mystery entitled, "The Case of the Perfect Fit." Circle L 15 on the postcard for a free copy.

Brake lining for light and medium trucks is described in this new booklet from World Bestos. Circle L 16 on the postcard for your free copy.

Alternators in new six and 12-volt models made by Leece-Neville Co. are described in this folder. Circle L 17 on the postcard on page 52 for your free copy.

Parts room shelves, storage cabinets, ladders, bins and other similar equipment are illustrated and described in this new catalog from Precision Equipment Co. Circle L 18 on the postcard for your free copy.

Chain and wire rope fittings—link rings, shackles, swivels, hooks, turn buckles, thimbles, clips, sockets, ring

(TURN TO PAGE 252, PLEASE)

FOR POWER... FOR PROFIT



To make a profit you've got to keep your trucks on the road and out of the repair shop. That calls for dependable Chrome Control Leak-Proof piston rings and McQuay-Norris parts. They're built to last!



CHROME CONTROL

LEAK-PROOF

PISTON RINGS

This set will outperform any other piston ring set in the "hard-to-hold" jobs regardless of kind, design or price.



McQUAY-NORRIS MANUFACTURING COMPANY • ST. LOUIS 10, MISSOURI

Hi-Cube, Short Length

Fruehauf Trailer Co. announces a 24½-ft, high cube van trailer designed especially for western train operation. It has a high tensile steel frame structure with aluminum lock-bolted shell panels, weighs — road ready—under 6000 lb. Eight of the new units are being put into piggy-back service by the Western Pacific Railroad.





...WITHOUT A THERMOSTAT TEST

Don't risk your shop's reputation to defective thermostats. It's best to replace with DOLE DV . . . the modern thermostat for new and old cars and trucks. Saves gas and oil . . . reduces engine wear . . . gives a sweet-running motor. Gets more heat out of heaters.

There's a nice profit for you in every DOLE Thermostat you install. Order them from your Wholesaler today.

Control with Dole TRADE MARK
DOLE
THE DOLE VALVE COMPANY
1901-1941 W. Carroll Ave., Chicago, Ill.
Representatives in Principal Cities

Now Standard Equipment on 13 Leading Cars and Trucks

Control with DOLE 1916 50th Anniversary

Fleetman's Library

Continued from Page 250

bolts, eyes, load binders—made by Thomas Laughlin Division, American Hoist and Derrick Co. are covered in this new catalog you can get by circling L 19 on the postcard

Four-wheel drive conversion units for ½, ¾, 1, 1½, 2-ton Chevrolet and GMC trucks are described in new bulletin from Napco Industries, Inc., that you can get by circling L 20 on the postcard on page 52.

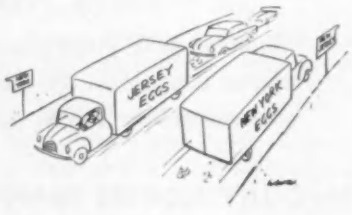
Tank truck carrier directory is in its second edition. It is a complete listing of tank truck operators by states, services and many other classifications. Copies are $5.00 each, can be ordered from National Tank Truck Carriers, Inc., 1424 Sixteenth St., N.W., Washington 6, D. C.

Highway terms are defined in this pocket-size booklet available from National Highway Users Conference, National Press Bldg., Washington 4, D. C. Ask for "The Right Word, a Glossary of Highway Terms."

Tubeless truck tire bulletins covering loads, inflation, servicing and other tubeless tire data have been announced by Dayton Rubber Co. For further details contact the company at Dayton 1, Ohio.

END

Please Resume Reading Page 64



THE INSIDE STORY OF A REVOLUTIONARY NEW AXLE!

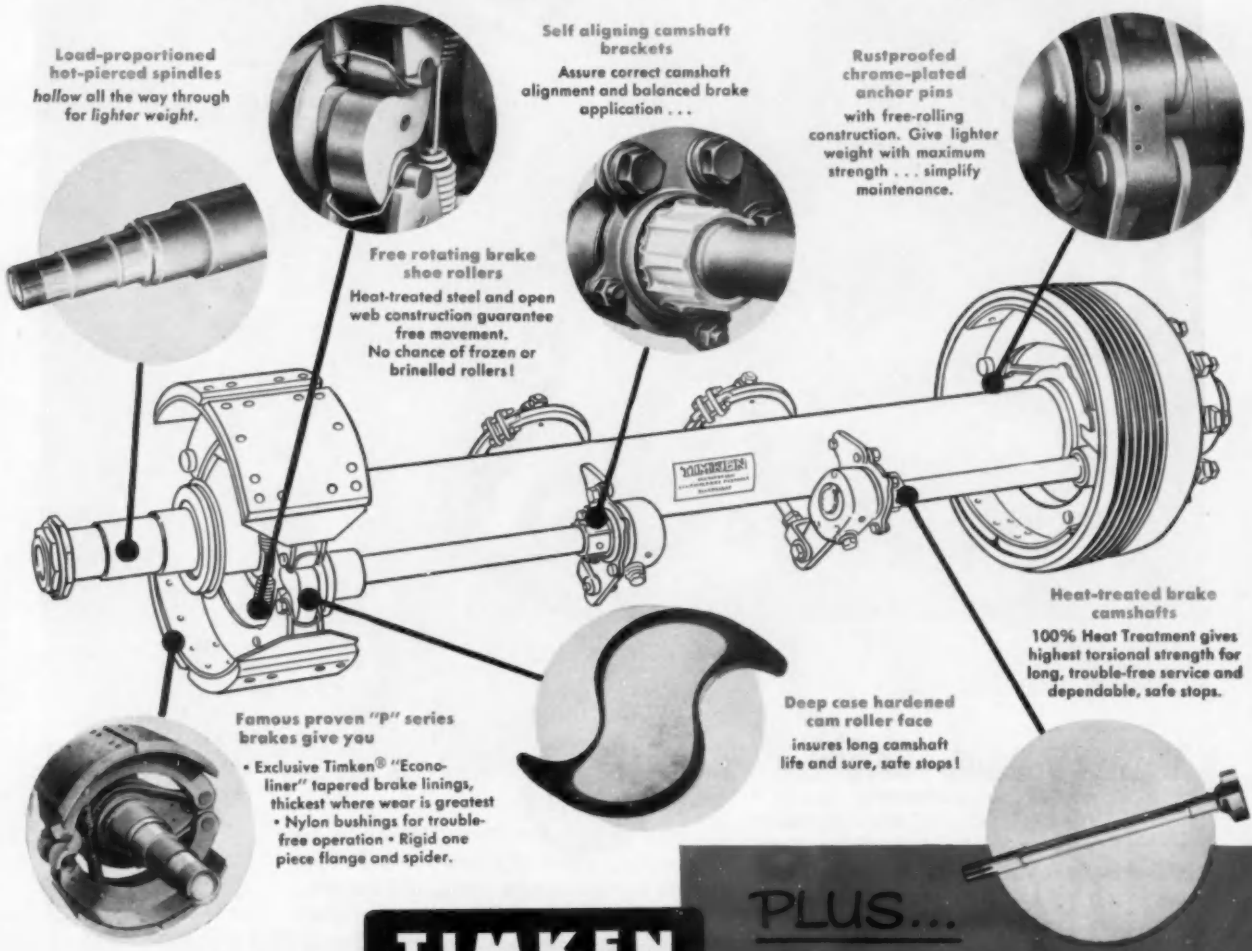
TDA's® New TK-500 Series Trailer Axle Gives up to 140 Extra Payload Pounds...Simpler Service and Inventory...Greater Strength for Greater Safety!

"Make it stronger . . . make it lighter," has become an unwritten law laid down by trailer operators and manufacturers. These two qualities are vital in modern axles. A breakdown means sidelining an entire vehicle. And any extra weight cuts into payload, reduces profits.

Here's why leading fleet operators specify quality built, safety tested TK-500 Series axles:

140 pounds lighter. On a tandem this means 280 extra payload pounds!

Torture-tested for rugged dependability! The most grueling field and laboratory tests prove the TK-500 matches or exceeds the strength of any axle of the same capacity.



PLUS...

- New lightweight steel hubs
- New lightweight ribbed brake drums
- New lightweight pressed steel brake shoes
- Lightweight nylon camshaft bushings
- Lightweight fiber glass dust shields

TIMKEN Detroit AXLES

TIMKEN-DETROIT AXLE DIVISION
ROCKWELL SPRING AND AXLE COMPANY
DETROIT 32, MICHIGAN

Accepted TDA Standard

Plants at: Detroit, Michigan
Oshkosh, Wisconsin • Utica, New York
Ashtabula, Kenton and Newark, Ohio
New Castle, Pennsylvania.

©1956, R S & A Company

World's Largest Manufacturer of Axles for Trucks, Buses and Trailers



Reo "perfect square" short stroke (bore and stroke exactly the same) insures smooth, full-volume engine breathing for top fuel economy and peak power output—as much as 1/2 h.p. per cu. in. displacement. Better breathing combined with less piston travel, less wear, less power loss due to friction gives you greater engine efficiency, more responsive horsepower. You get better gas mileage—longer engine life.

Wet-sleeve construction adds to short-stroke efficiency and extends new engine performance—original factory tolerances are restored exactly even after years of rugged service and several overhauls. Overhaul downtime and cost are cut in half.

REO BUILDS ONLY COMPLETE LINE OF SHORT-STROKE, WET-SLEEVE ENGINES . . . ALL BACKED BY REO'S 100,000 MILE OR ONE-YEAR WARRANTY!

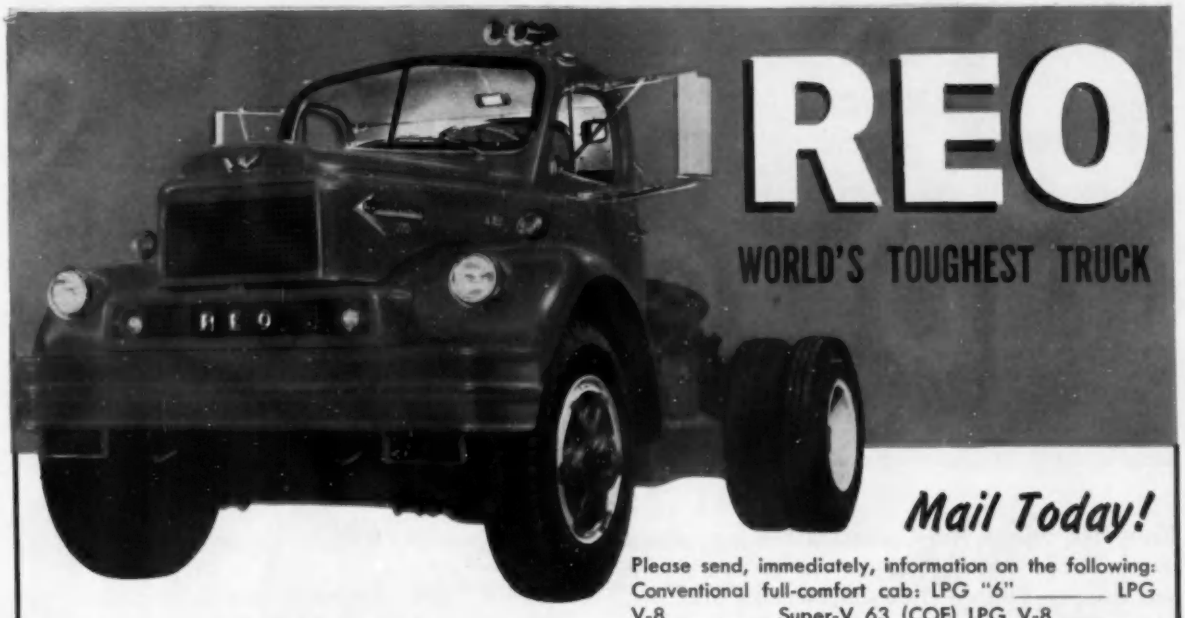
for short-stroke and wet-sleeve

in largest line of LPG engines

Reo brings you a complete line of Gold Comet engines *factory-engineered for LPG.* Now, truck operators can experience the full advantages of this modern, economical fuel, plus the unmatched performance of Reo's advanced short-stroke, wet-sleeve engine design. A combination unequalled for power, performance and economy.

Reo LPG Gold Comets are available in V-8's and *Sixes* from 100 to 220 h.p.

You can get these new Reo LPG power plants in rugged Reo trucks or for replacement in other truck makes. All are backed by Reo's famous 100,000 mile warranty. Call your Factory Branch or Distributor or mail coupon today.



Mail Today!

Please send, immediately, information on the following:
Conventional full-comfort cab: LPG "6"_____ LPG V-8_____ Super-V 63 (COE) LPG V-8_____

REO MOTORS, INC.

Subsidiary of BOHN Aluminum and Brass Corporation

LANSING 20, MICHIGAN

NAME_____

COMPANY_____

TITLE_____

ADDRESS_____

CITY_____ ZONE____ COUNTY_____ STATE_____

NOW REO

...with full-comfort cabs

REO A SERIES
with Cummins 175 h.p.
JT-6B Turbodiesel

Conventional 96" cab hauls 35' square nose trailer within 45' overall.



Now Reo brings you Cummins 175 h.p. diesel power in the *world's toughest trucks*. You get all the famous rugged Reo engineering features for smooth, trouble-free performance in a choice of two highly-maneuverable, easy-handling trucks. Both with roomy, conventional cabs designed for driver comfort.

Tandem and single axles available in a wide choice of wheelbases for both trucks and tractors. Models up to 48,000 pounds GVW or 62,000 pounds GCW for on or off highway use.

Reo "A" and "F" series models also available with gas or LPG Gold Comet engines backed by *100,000 mile or 1 year warranty*. All have modern short-stroke, wet-sleeve design. V-8's and 6's from 100 to 220 h.p.

Coming soon—200, 250 and 300 h.p. Cummins Turbodiesels in Reo's new Super-V 63 C.O.E. See your Reo Branch or Distributor today!

Turbodiesels

at no premium prices!

REO F SERIES
with Cummins 175 h.p.
JT-6B Turbodiesel



REO

WORLD'S TOUGHEST TRUCK

REO MOTORS, INC.
LANSING 20, MICHIGAN
Subsidiary of BOHN Aluminum and Brass Corporation

Mail Today!

RUSH INFORMATION

- ☐ "A" Series
- ☐ "F" Series
- ☐ Super-V63 (COE)
- ☐ Gold Comet "6"
- ☐ Gold Comet "V-8"
- ☐ Gas ☐ LPG

NAME_____
COMPANY_____
TITLE_____
ADDRESS_____
CITY_____ COUNTY_____ STATE_____

Selected Truck and Bus Public Relations Films

BETTER public relations for the highway transportation industry and more adequate highways—two top subjects for bus and truck fleet operators—are covered in this film list. It is designed to help you take advantage of every opportunity to show the public the importance of bus and truck transportation and the value of better roads in today's economy. Show them at your local Rotary, Kiwanis, Lions, etc. — benefit your community and yourself.

Films in this section are divided as follows:

1. Highway Transportation
2. Adequate Roads

Most of these films are available for your use without cost—you pay only transportation and insurance. Others carry a nominal rental charge. Because of demand, films should be ordered as far in advance as possible.

All of the films in the list are 16 mm. All are sound films unless otherwise indicated. **Sound films should never be shown in a silent-type projector** as it destroys the sound track. Projectors for showing the films, if not otherwise obtainable, can usually be rented locally at low cost.

Numbers at the end of each film's description refer to the list of sources beginning on page 262.

Highway Transportation

Gentlemen of the Highway—10 min—Describes the training, the qualifications, the vehicles and the daily routine of a bus driver. Free loan—1.

Haulaways West — 25 min — Describes truck transportation and safe truck driving in the delivery of four new automobiles from a Detroit plant to a new car dealer in Los Angeles, Cal. Free loan—18.

Horizons Unlimited — 17 min — graphically shows the importance of truck transportation in our everyday living. Includes scenes of many different types of trucks. Free loan—4, 11, 13, 19, 26.

Look What You're Missing—27 min—Color film illustrating driving tip-offs used by truck drivers to prevent accidents. Basic film on defensive driving. Free loan—15.

The McGurk Way — 26 min — Presents history of highway transportation from colonial days to the present. An interesting outline of state legislation affecting highway transportation is included. Free loan—12.

Mr. O'Flynn's Fifty Million Wheels—25 min—Shows how and why trucks are important, but does it in a "practical fantasy" that will be entertaining for any service club, social group, etc. Free loan—5.

Oil—The Invisible Traveler—20 min—Shows how oil and oil products are transported from the well to the consumer, including many illustrations of tank trucks at work. Free loan—22.

Pipeline on Wheels—26 min—Shows how the modern tank truck is a strong, carefully engineered vehicle

(TURN TO PAGE 260, PLEASE)

THIS POWERFUL TOOL MAKES REMOVING TRUCK TIRES EASY



and handles the new 15° tubeless as well as conventional tires and rims.

POWERED BY YOUR AIR LINE

The Branick TRUCK TIRE REMOVER

Breaks loose stubborn rusted-on beads in seconds with finger-tip air valve control. Built rugged to take abuse, yet is completely portable. Thoroughly job proven to save time and labor in thousands of shops all over the country. Write for our catalog of Tire Handling Equipment.

BRANICK MFG. CO. FARGO, NORTH DAKOTA



TIRE RACKS OR SHELVING MADE QUICKLY USING STANDARD PIPE

BRANICK WELDED STEEL TIRE RACK BRACKETS

No pipe to thread—stand alone—build to any length or height. Three sizes for ¾" to 2" pipe. Send for illustrated folder today.



BRANICK PRODUCTS COMPANY

FARGO, NORTH DAKOTA CABLE: BRANICK, U. S. A.

In Canada write for name of nearest jobber. All other exports write Branick Mfg. Export Co., 82 Beaver St., New York, New York. Eastern Sales Office, 227 W. Exchange St., Akron, Ohio.



This distinguished advertisement* is still another reason why more and more motorists ask for FRAM Filters!

* *As published in* THE SATURDAY EVENING POST.

Selection of FRAM Filters by the Continental Division of Ford Motor Company for its fabulous Continental Mark II is just another milestone in the growing preference for FRAM.

Today more manufacturers, more dealers and more motorists prefer FRAM than any other oil filter made.

FRAM CORPORATION, Providence 16, R.I.
Fram Canada Ltd., Stratford, Ontario.

Public Relations Films

Continued from Page 258

for safe transportation of gasoline and other liquids. Free loan—9.

A Professional Portrait—22 min—Shows how professional truck drivers "keep 'em rolling" safely, skillfully, considerately, and how their work brings us the things we need and use. Free loan—4, 13, 19.

Rehearsal for Disaster—20 min—Produced by the Federal Civil Defense Administration in cooperation with American Trucking Assns., it shows the important part trucks play in helping rescue and rebuilding in local disasters (floods, hurricanes, etc.) and in national emergencies. Free loan—4.

The Road Ahead—15 min—Stresses the importance of truck transportation with many excellent scenes of trucks at work. Free loan—4, 26.

Safety Is No Accident — 13 min — Color film illustrating the theme that highways would be safer if all drivers were like professional truck drivers. Describes the automobile cameras for highway observation used by Markel Service, Inc. Free loan—16.

Singing Wheels—23 min—Portrays the part trucks play in building, distributing, and serving. A particularly dramatic sequence shows what would happen if trucks disappeared. Free loan—4.

Teamwork in Transit — 21 min — Tells the story of the trucking industry's importance to our everyday life and traces the history of highway transportation. It emphasizes the important part played by mechanics and drivers. Free loan—6.

They Drive in Safety — 25 min — Color film on how to attain accident-free truck driving. Free distribution limited to 11 western states. Free loan—17. Rent—20.

They Drive the Long Haul—28 min —Color film illustrating delivery of a load of freight between Los Angeles, Cal., and Spokane, Wash. It emphasizes the driver's part in truck fleet operation. Free loan—25.

To New Horizons—17 min—Depicts the development of transportation in the post war era. Free loan—26.

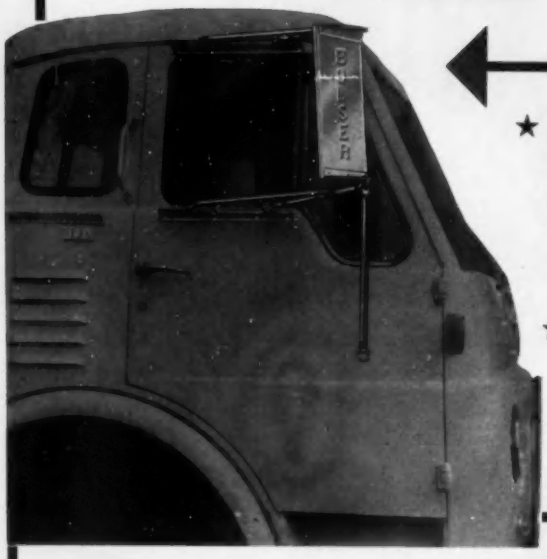
Trucks That Serve Our City — 14 min—Shows how trucks serve the modern city in respect to communication, food supply, sanitation, construction and as the necessary link between railroads and the consumers. Rent—23.

Wheels of Progress—24 min—Color film explaining how long haul motor freight operates including its history, background and highway safety. Shows how truck transportation serves the nation. Free loan—21.

With Care—11 min—A professional truck driver tells a private motorist about how fleet operators promote

(TURN TO PAGE 262, PLEASE)

The ONE West Coast Type Mirror
That FITS EVERY CAB



★ UNIVERSAL BRACKET—form fits to ANY cab door—easily installed by anyone

★ MIRROR FOLDS BACK FLAT AGAINST CAB —simply slip out 2 pins

BOLSER

The Finest Features Ever Designed Into A Truck Mirror

- Simplified installation — unique form fitting bracket easily fitted to all cabs.
- Rugged Construction — frame of steel tubing. Bracket parts of heavy duty stamped steel.
- ¼" Plate Glass Mirror—optically ground—5-year guarantee against discoloration of any kind.
- Mirror Fully Adjustable—forward —back-in-out, lays back against cab if desired.

Write for NEW, FREE Illustrated LITERATURE

The BOLSER CORPORATION, Cedar Falls, Iowa

Manufacturers of a complete line of quality safety equipment including GENUINE BOLSER FLARES



Once again! Willard MAKES BATTERY HISTORY!







Willard Slashes Fleet Prices

on most popular types of Truck...Bus...Diesel Batteries!





Now you can buy genuine Willard top-quality batteries at prices which are directly competitive with those of ordinary batteries. Substantial fleet price reductions on practically all of Willard commercial service batteries make it possible for any fleet—large or small—to profit from the longer service life and extra dependability which are inherent in every Willard Battery. Your nearby Willard Distributor has complete information . . . is ready to quote on your requirements!

...and for EXTRA Maintenance Savings

New and improved Willard fast chargers and bulb-type series chargers now available to meet specific requirements of every fleet—large or small. Floor models . . . portables . . . utility models . . . for charging both 6- and 12-volt batteries.

WILLARD FAST CHARGERS MAINTAIN PEAK BATTERY PERFORMANCE

INTRODUCTORY SPECIAL!
Only $99.95 Exchange

Save $66.55

on regular $166.50 charger



Here's the biggest charger value in Willard history. Accurate, Electric Timer Control. 100 Amps. charging rate on 6-volt batteries . . . 50 Amps. on 12-volt models. Trade in your old charger now. If your distributor cannot supply you, write direct to Willard Storage Battery Division, Cleveland 1, Ohio.

OFFER EXPIRES MAY 31, 1956

CALL YOUR NEAREST Willard DISTRIBUTOR TODAY!

Public Relations Films

Continued from Page 260

safety on the highway. Includes illustrations of safe truck driving. Free loan—24. Rent—8, 14.

Adequate Roads

Better and Safer Highways—7 min—Promotes public understanding of Project: Adequate Roads — Explains why our present roads are inadequate and what should be done to remedy the situation. Free loan—5.

Give Yourself the Green Light—26 min—Color film for showing to service clubs and other public groups. It shows how everybody benefits from adequate highways and what can be done to obtain them. Free loan—13.

Highways Ahead — 29 min — Color film tracing the history of our roads. Free loan—7.

Let's Get Out of the Muddle — 19 min—Shows why our roads are inadequate, how rapidly increasing vehicle registrations and old, worn out roads combine to halt our progress. Shows why and what kind of better roads are needed. Free loan—3, 13.

The Longest Mile — 30 min — Color film showing how the general public can join forces with county, state and federal highway officials to obtain better roads. Distribution limited to states east of the Mississippi River. Free loan—2.

Pennsylvania's Highway Story—22 min—Color film showing the importance of adequate highways to the state's economy. The story applies to any state. Free loan—3.

The Perfect Crime—21 min—Color film that shows how more adequate highways can promote traffic safety, prevent accidents. Free loan—7.

The Road Ahead—74 min—Color film in three reels—shows the operation of a state highway department, administrative as well as operational problems and their solution. Designed for public showing, it shows what goes on in building adequate highways. Free loan—3.

Ten Days per Man—26 min—New color film that encourages public and individual interest in our present road problems and support of legislation for better roads. Illustrates how modern methods and equipment can provide more roads at lowest cost. Free loan—10.

LACO HEAVY DUTY *Fountain* BRUSHES

ROUND

OBLONG

NOW AVAILABLE with FINGER-TIP DETERGENT and FRESH RINSE WATER *Control*

TRAILERS

TRUCKS

BUSSES

AIRPLANES

AUTOS

R. R. COACHES

Leading Fleet, Train, Bus and Commercial Operators look to Laco - manufacturers of commercial wash brushes . . . . Since 1855.

Durability of Laco Brushes provides unrivaled economy for commercial vehicle operators, in time, labor, and material cost savings. In building maintenance they are equally efficient for washing frame, metal, brick and cement surfaces. All parts replaceable without return to factory. Choice of brushes and accessories to fit your exact needs. Detergent container and water control valve on handle permit finger-tip control of both detergent and rinse water. Controls can be used together or separately.

LACO means LOWEST COST

LACO means BEST VALUE

Water Control

Detergent Control

WRITE US FOR CATALOG AND PRICES.

LAITNER BRUSH CO.

Brush Manufacturers Since 1855

2000 BROOKLYN AVE. DETROIT 26, MICH.

SOURCE LIST

NUMBERS refer to the numbers at the end of the description of each film. Where more than one source is given, write to the closest address.

1. Affiliated Aetna Life Cos.
   Motion Picture Bureau
   151 Farmington Ave.
   Hartford 15, Conn.
2. Allied Chem. & Dye Corp.
   Paving Materials Sales
   The Barrett Division
   40 Rector St.
   New York 6, N. Y.
3. American Assn. of State Highway Officials
   917 National Press Bldg.
   Washington 4, D. C.
4. American Trucking Assn., Inc.
   Public Relations Dept.
   1424 Sixteenth St., N.W.
   Washington 6, D. C.
5. Association Films
   Broad at Elm
   Ridgefield, N. J.
   79 East Adams St.
   Chicago, Ill.
   1108 Jackson St.
   Dallas, Texas
   351 Turk St.
   San Francisco, Cal.

(TURN TO PAGE 266, PLEASE)

Your Fleet Gets Complete Appearance Reconditioning *FAST*... with this *NEW*

Black & Decker® Vitri-Glaze System!

Slash Labor Costs 58% per Car!



Completely new Vitri-Glaze System saves you $5.25 each time you use it . . . Cuts labor costs more than half. Polishes, vacuums, removes stale odors . . . and in much less time. Gives fastest, longest lasting appearance reconditioning job your fleet ever had. For as little as $11.30 a month. Call your B&D distributor today or write to: THE BLACK & DECKER MFG. CO., Dept. 3904, Towson 4, Maryland.

Look at the difference!

	VITRI-GLAZE	HAND POLISHING
Time	2½ hrs.	6 hrs.
Labor Cost	$3.75	$9.00

SAVE 3½ hrs., $5.25 per job! Two jobs a month pay for complete System.

SAVE $40 RIGHT NOW!

Complete B&D Vitri-Glaze System, everything included, is worth..... $358.50

You Pay Only..... $318.50

Pay as little as $11.30 a Month

Here's what you get in this terrific money-saving deal

The Complete Vitri-Glaze System Financed!
Pay as little as $11.30 a month. No red tape. Your distributor has the complete story.

The Famous B&D Heavy-Duty Automatic Polisher!
Does polishing jobs quicker, easier than any other polishing method. Cleans, seals, polishes in *one* simple operation.

3 New B&D Vitri-Buff Bonnets!
Specially designed to take full advantage of the free-and-easy motion of the B&D Polisher. Lasts up to four times longer than ordinary bonnets.

6 Gallons of New, Improved B&D Vitri-Glaze!
No other polish shines so well or lasts so long. Removes road scum, seals in beauty, gives gleaming, new protection to body.

The New, Improved PoliShop!
Completely mobile, designed to *stand* on. Perfect height for reaching top of vehicle. Holds all materials.

The Sensational New No. 65 Vacuum Cleaner!
Large wheels for easy mobility. Super-flexible hose extends 15 feet. 70% to 100% more cleaning power than *any* comparable unit. Heavy-Duty!

Extra Accessories With Purchase of System!
Handy accessory carrier and plastic protective cover for Vacuum Cleaner. Supply of Fresh Air Spray, a quick 'n easy way to knock out stale odors, replace with fresh, pleasing smell.

Look in the Yellow Pages under "Tools-Electric" for Nearest Distributor

B&D Black & Decker®
PORTABLE ELECTRIC TOOLS

GET STARTED NOW . . . SLASH YOUR FLEET RECONDITIONING COSTS!

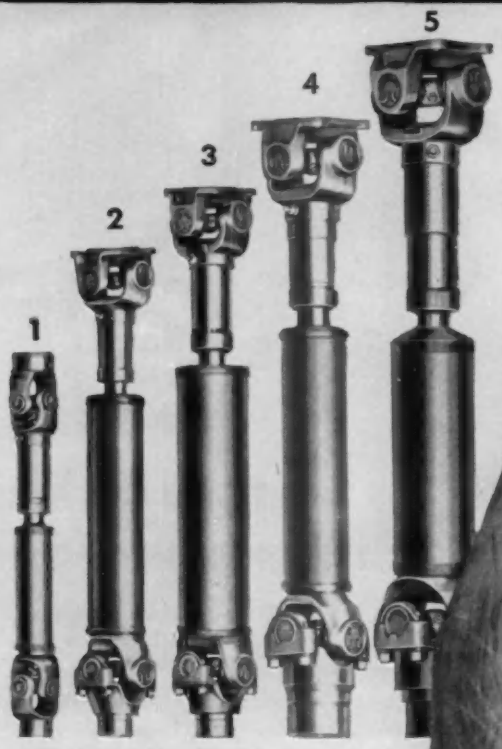
Spicer introduces the 1480 Series Universal Joints for the new Heavy Duty Medium Trucks

With new, more powerful engines, Medium Trucks have entered the Heavy Truck field. For these new Heavy Duty Models Spicer has developed a new Heavy Duty Medium Truck propeller shaft with Universal Joints designed expressly for this requirement.

The Spicer 1480 Series is designed for use in the larger 3 to 4 ton trucks, buses and other automotive vehicles in the 20,000 to 28,000 pounds gross vehicle weight class.

The 1480 Series is manufactured on the same high production machinery that produces millions of Spicer joints and propeller shafts for light and medium trucks.

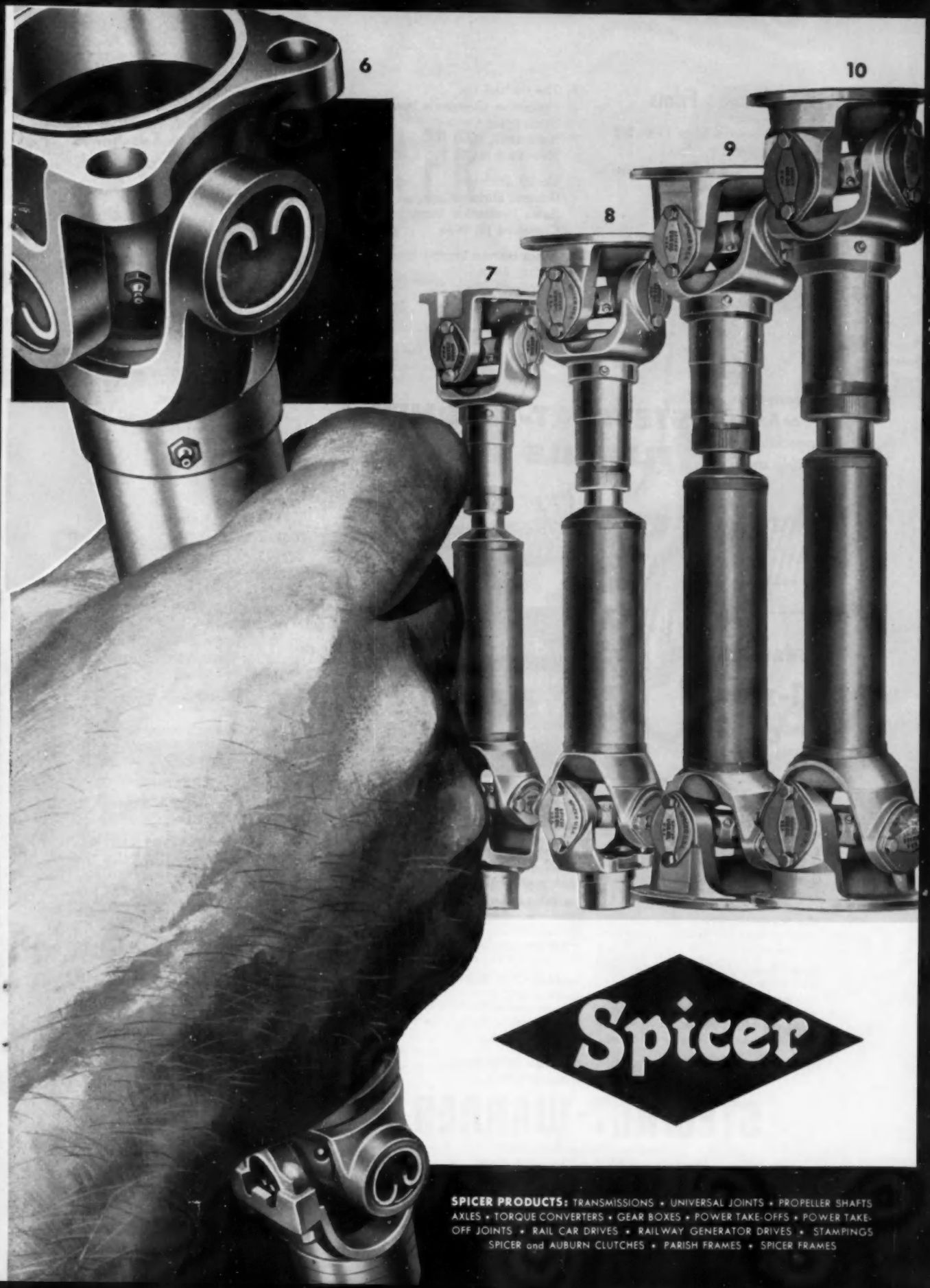
To accommodate the wide variety of models demanded by truck users today involves many difficult drive line problems. DANA engineers will be glad to work with you on the application of the 1480 Series in your chassis.



1. 1000 Series and 1100 Series—Power Take Off Joints.
2. 1260 Series—Passenger Car and ½ Ton Pick Up Truck applications. This includes vehicles up to approximately 5000 pounds gross vehicle weight.
3. 1310 Series—Large Passenger Car and ¾ and 1 Ton Truck applications. Approximately 7500 to 10,000 pounds gross vehicle weight.
4. 1350 Series—for 1½ Ton Truck application. Gross vehicle weight approximately 10 to 15,000 pounds.
5. 1410 Series—for 2 and 2½ Ton Truck applications, in range of 16,000 to 20,000 pounds gross vehicle weight.
6. 1480 Series—3 to 4 Ton Truck applications. In range of 20,000 to 28,000 pounds gross vehicle weight.

7-8-9-10. 1500-1600-1700 and 1800 Series for Heavy Duty and Off-Highway Trucks—30,000 pounds gross and up vehicle weight.

DANA CORPORATION
TOLEDO 1, OHIO



SPICER PRODUCTS: TRANSMISSIONS • UNIVERSAL JOINTS • PROPELLER SHAFTS AXLES • TORQUE CONVERTERS • GEAR BOXES • POWER TAKE-OFFS • POWER TAKE-OFF JOINTS • RAIL CAR DRIVES • RAILWAY GENERATOR DRIVES • STAMPINGS SPICER and AUBURN CLUTCHES • PARISH FRAMES • SPICER FRAMES

Public Relations Films

Continued from Page 262

6. Bendix Westinghouse Automotive Air Brake Co.
   901 Cleveland Rd.
   Elyria, Ohio
7. Caterpillar Tractor Co.
   Peoria 8, Ill.
8. The Distributors Group, Inc.
   756 Peachtree St.
   Atlanta, Ga.
9. The duPont Co.
   Petroleum Chemicals Div.
   Rockefeller Center
   Suite 1810, RKO Bldg.
   New York 20, N. Y.
10. Euclid Division
    General Motors Corp.
    Sales Promotion Dept.
    Cleveland 17, Ohio
11. Farm Bureau Mutual Auto Ins. Co.
    Safety Dept.
    246 North High St.
    Columbus 16, Ohio
12. Fruehauf Trailer Co.
    Detroit 32, Mich.
13. General Motors Corp.
    Department of Public Relations
    Film Section

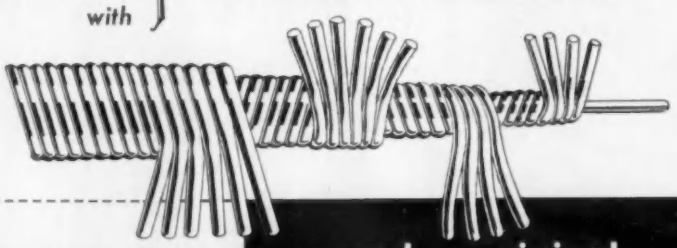
    New York City and Long Island
    1775 Broadway
    New York 19, N. Y.

    Eastern States
    General Motors Bldg.
    Detroit 2, Mich.

    Western States
    508 San Francisco Bank Bldg.
    405 Montgomery St.
    San Francisco 4, Cal.
14. Kunz Motion Picture Service
    1319 Vine St.
    Philadelphia 7, Pa.
15. Liberty Mutual Ins. Co.
    175 Berkeley St.
    Boston 17, Mass.
16. Markel Service, Inc.
    90 John St.
    New York 7, N. Y.
17. Motor Truck Assn. of Southern Cal.
    605 West Seventh St.
    Los Angeles, Cal.
18. National Automobile Transporters Assn.
    Accident Prevention Dept.
    2627 Cadillac Tower
    Detroit 26, Mich.
19. National Highway Users Conference
    National Press Bldg.
    Washington 4, D. C.
20. National Safety Council
    Film Bureau
    425 North Michigan Ave.
    Chicago 11, Ill.
21. Pacific Intermountain Express
    Public Relations Div.
    299 Adeline St.
    Oakland, Cal.
22. Shell Oil Co.
    Film Library, Room 4226
    50 West 50th St.
    New York 20, N. Y.
23. Tomkins Films
    1044 West Edgeware Rd.
    Los Angeles 26, Cal.
24. Utica Mutual Ins. Co.
    First National Bank Bldg.
    Utica, N. Y.
25. West Coast Fast Freight, Inc.
    650 Hanford St.
    Seattle 4, Wash.
26. The White Motor Co.
    Sales Promotion Dept.
    842 East 79th St.
    Cleveland 1, Ohio

Replace worn or broken speedometer flexible shafts with

STEWART-WARNER FLEXIBLE SHAFTS



STEWART-WARNER 21-strand core

...used as original equipment on leading makes of trucks and passenger cars!

Insist on Stewart-Warner—the *quality* line of core and casing—products of over 50 years of experience in supplying speedometers and speedometer drive equipment to the leading car, truck and bus manufacturers!

Cut maintenance costs—benefit by the important extra advantages of Stewart-Warner *21-strand core* construction:

Less "Backlash!" All flexible core will show some torsional deflection or "backlash" under load . . . but careful control of winding operations, combined with rigid standards of inspection, insures a minimum backlash in Stewart-Warner core.

Non-Raveling! Stewart-Warner core will not ravel when cut. Uniform throughout entire length, regardless of whether tips are put on at the factory or in the field.

Flexible! Correct tension is applied during winding—so that core is soft enough for easy handling and silent operation, yet hard enough to give maximum wear resistance.

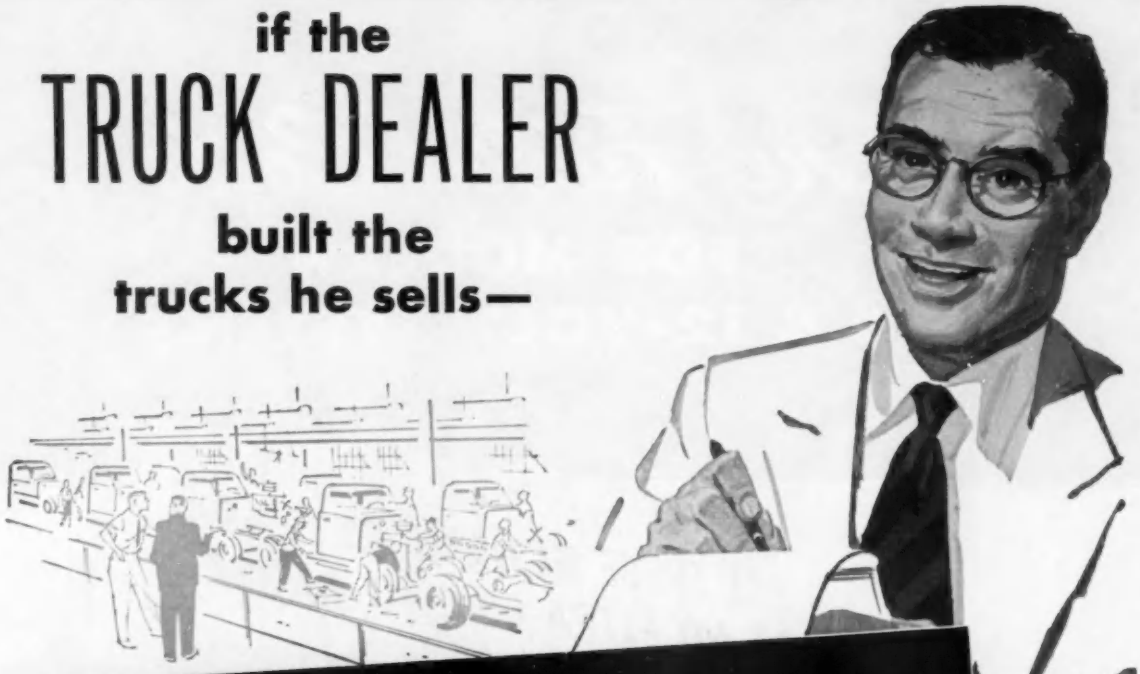
Uniform! Top Quality! Careful inspection and manufacturing control is your assurance of the long service life for which Stewart-Warner products are famous.

See your Service Station Operator, or call Your Stewart-Warner Distributor today!

STEWART-WARNER

Instrument Division, Dept. DD-46
1840 Diversey Parkway, Chicago 14, Illinois

if the TRUCK DEALER built the trucks he sells—



ZENITH CARBURETORS

would be *his* choice

The successful truck dealer is in the business of selling customer satisfaction as well as retailing trucks. For it is obvious that unless a dealer enjoys a substantial volume of repeat business he is going to have trouble operating at a profit.

Therefore, shrewd truck dealers are vitally interested in the performance of such important components as carburetors. It is for this reason that the outstanding performance characteristics of Zenith* Carburetors, under every operating condition, have made Zenith the dealer's choice.

Therefore, it just seems reasonable that if truck dealers were engineering trucks for complete customer satisfaction, performance proven Zenith Carburetors would be their choice for standard equipment.

Further evidence why—if you build, buy, sell or operate trucks, Zenith should be your choice for the finest in carburetion.



*REG. U. S. PAT. OFF.

ZENITH CARBURETOR DIVISION OF Bendix AVIATION CORPORATION

696 Hart Avenue • Detroit 14, Michigan • Export Sales: Bendix International Division, 205 East 42nd St., New York 17, N. Y.

Oil Filled Coils
FOR MODERN 6 & 12-VOLT SYSTEMS

ALL THESE ECHLIN EXTRAS AT NO EXTRA COST TO YOU

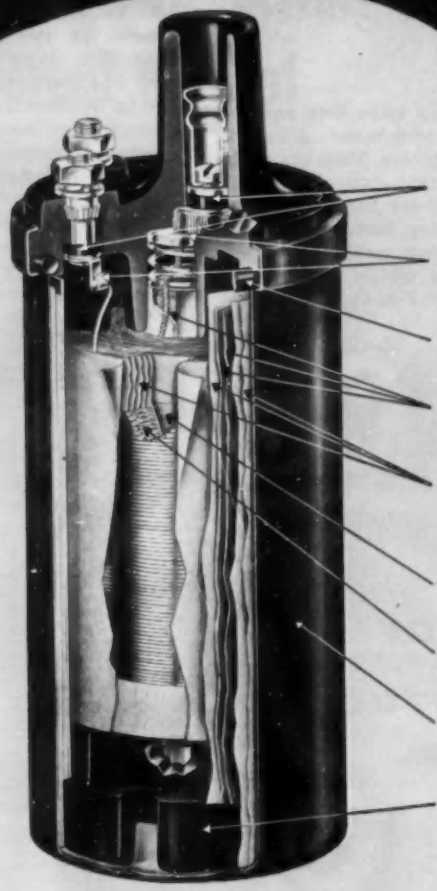
- Oil impregnated and filled under vacuum
- No voids or bubbles to cause insulation failure
- Completely waterproof to assure long life
- Low current draw for longer contact life
- Proper diameter and terminal position for each installation

YOU CAN PAY MORE, BUT YOU CAN'T BUY A BETTER COIL AT ANY PRICE!



A complete line of coils for old and new vehicles

ECHLIN IGNITION OF CANADA LTD. • 1866 AVENUE ROAD • TORONTO, ONT.



OIL RESISTANT BUNA N GASKETS

SOLDERED PRIMARY AND SECONDARY CONNECTION

BUNA N "O" RING SEAL

LAMINATED CORE

INSULATION—OIL IMPREGNATED UNDER HEAT AND VACUUM

SECONDARY WINDING

PRIMARY WINDING

SEAMLESS DRAWN STEEL CASE

PHENOLIC BASE INSULATOR WITH OIL CIRCULATING PASSAGES



. . . All ECHLIN coils for modern cars are oil filled

ADVERTISED IN The Saturday Evening POST

ECHLIN Ignition

A PRODUCT OF ECHLIN

CONTACTS
COILS • CONDENSERS
& OTHER AUTOMOTIVE
ELECTRICAL PARTS

ECHLIN MANUFACTURING COMPANY • NEW HAVEN 5, CONN. • U.S.A.

New Product Descriptions

Continued from Page 54

ber-covered hose for a wide variety of low pressure uses up to 250 psi. According to Robert W. Phillips, Flex-O-Tube Chief Engineer, the new fitting is assembled dry or with water as a lubricant merely by pushing the hose over twin ferrules on the fitting stem. A key feature of the fitting is that it permits shop and maintenance personnel to quickly make hose replacements without even removing the fitting from a machine. They are made in six types—rigid male pipe, swivel female SAE 45-deg flare, swivel female SAE 37-deg flare, swivel male inverted nut, rigid male SAE 45-deg flare, and rigid female inverted fittings. The new Flex-O-Tube "Dynalok" high-pressure clamp fitting is made of heavy malleable iron and is secured by two large heat-treated bolts. The clamp is made in eight sizes to accommodate hose from ¼ to two in. in diameter. For use with all standard-type high-pressure hoses of the proper dimension, the triple wire braided hose and clamp are rated for pressures up to 3000 psi; with double wire hose, it is also rated up to 3000 psi; with single wire hose it has a 2500 psi rating; and used with two fiber braided hose, it is rated for service up to 1500 psi.

for greater safety

Big Boy Mirror assembly for all trucks

KD 51 *Big Boy* Mirror Assembly for all trucks and commercial vehicles has everything. *Steadfast picture* of the rear . . . vibration eliminated by outer and inner arms of heavy seamless steel tubing . . . and a brand new assembly design! *Completely adjustable:* vertical bracket mounting centers 14⅜" to 19" . . . horizontal adjustment from 8" to 9¾" . . . inner arms heavily plated . . . 360° pivot of mirror head mounting tube . . . swivel mounting bolt in head.



universal mounting

Mounts left or right. *Special brackets included in assembly for installation on 1955 GMC-Chevrolet trucks.* Extensions, pivot, swivel . . . all combine to make K-D's Big Boy useful on all work units.

replaceable mirror glass

Double-strength replaceable glass in the 5½" x 8½" rectangular mirror head is held in place and protected by rubber guard. Silvered surface of mirror double-coated to prevent deterioration. Wax-impregnated gasket keeps moisture out. Steel mirror back is ribbed to increase strength without adding weight. Baked-on black enamel finish.



The Complete Line Truck Mirrors, Stop and Rear Lites, Reflectors, Clearance Marker Lites, Turn Signals are representative of K-D's complete *single-source-service* of automotive Saftee Products.

K-D LAMP COMPANY
1910 ELM STREET • CINCINNATI 10, OHIO
WAREHOUSES: BOSTON - CHICAGO - LOS ANGELES
NEW YORK - PHILADELPHIA - SEATTLE - TORONTO

THE COMPLETE LINE · SAFTEE PRODUCTS

P25. Reefer Unit

Frank-Dewey Co., Detroit, announces an upright "Rovan" all-electric truck refrigeration unit designed for "over-the-wheel housing" installation. The unit measures 24 x 47 x 17 in. and is quickly put to work on the



flat wheel housing or in any of the 4 corners of the floor of a 300 to 600 cu ft. insulated truck body. Installation is by drilling 4 bolt holes to attach the unit's angle-iron mounting. Capacity is about 10,000 Btu at normal driving speeds.

P26. Anti-Rust Spray

Eastern Aerosol Products, Newfoundland, N. J., is producing a rust preventive spray for use on tools, molds, dies, instruments parts and machinery. The new compound is packaged in a 12-oz aerosol spray container. According to Eastern Aerosol, a can provides approximately 80 sq ft of coverage in the form of a clear, dry, waxy film to a thickness of .0005. Except in the case of use on precision instruments where critical tolerances are to be held, the film need not be removed when the protected tool, mold, part, etc. is re-

(TURN TO PAGE 272, PLEASE)

"After break-in" driving requires a different kind of oil filtration

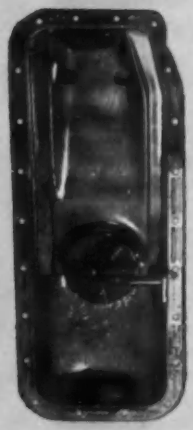


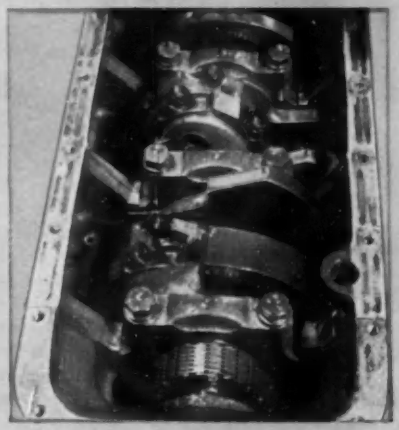
During the "break-in" period of an engine—the job of the oil filter is mainly a "straining" job, protecting the new engine from abrasive wear caused by *solid* contaminants characteristic of the "break-in" period such as dirt, metal particles and core sand.

In the "after break-in" period—the major threats to the engine are sludge and corrosive acids formed by *water* and other "blow-by" products of combustion.

Because both the *source* and *character* of "after break-in" oil contamination are different—AN ENTIRELY DIFFERENT TYPE OF OIL FILTRATION IS REQUIRED.

ACTUAL CASE HISTORIES PROVE SUPERIOR PROTECTION OF WALKER REPLACEMENT CARTRIDGE DURING "AFTER BREAK-IN" DRIVING





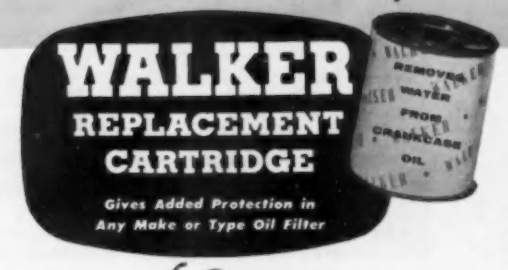
The Case of the "Well-Protected Ford"

This 1955 Ford V-8 was purchased new. The oil change period was twice a year. The original "break-in period" type cartridge was replaced between 300-500 miles with a Walker Laminar Replacement Cartridge—and new Walker Cartridges were installed at approximately each 2500 miles of driving. The vehicle followed a normal average driving pattern. Total mileage at the time of photographs—23,148. Notice the clean sludge-free oil pan and engine. The Walker Laminar Replacement Cartridge with its *extra ability to remove water* as well as ordinary solid contaminants has protected this engine against damaging sludge which results from water in the oil mixing with other contamination during the "after break-in" period.

Walker Cartridges are designed for "after-break-in" driving



FREE... 36-page illustrated book that tells the complete, factual story of oil contamination build-up and the oil filtration problem in the "After Break-In" period. Mail your request, on your company letterhead, to . . .



WITH PATENTED Laminar CONSTRUCTION

WALKER MANUFACTURING COMPANY OF WISCONSIN... RACINE, WIS.... OIL FILTERS... EXHAUST SILENCERS... JACKS

New Products

Continued from Page 270

moved from storage or tool crib and readied for use. The film is worked off in the using.

P27. Vinyl Decals

Master Craft Decalcomania Co., Chicago, announces its new vinyl pressure-sensitive decals. By removing the paper backing, the vinyl sign can be quickly and accurately pressed onto the truck. Signs can be die-cut and made in any choice of colors and designs, or can be obtained in stock designs. Wearing quality is extended by a vinyl protective overcoating.

P28. Torque Adaptor

Snap-on Tools Corp., Kenosha, Wis., has just announced an adaptor for torquing the exhaust manifold bolts on late model Ford products with V-8 engines. As these bolts are hidden by the manifold, a special bend is necessary to clear obstructions, yet keep the drive end in line with the wrench opening for accurate torque readings. The adaptor will work on 1952-56 Lincolns and 1954-56 Mercury and Ford V's.

P29. Seat Cushion

Seatmaster Co., Chicago, is marketing a lightweight seat cushion for heavy-duty driving. The model No. 156 one-piece contour cushion and back features all-steel coil spring construction. The cool open mesh weave permits air to circulate freely.

P30. Mobile Speaker-Mike

Motorola Communications and Electronics, Inc., Chicago, announces a transistorized dynamic microphone for mobile radio applications. The microphone features a specially designed dynamic element employed in conjunction with a built-in transistor preamplifier. Transistor preamplifier, an integral part of the microphone, boosts the dynamic output to conventional transmitter input level, eliminating the need for a preamplification at the transmitter. This technique is said to overcome the noise pickup problem inherent in mobile installations. The new development is also available as a dual purpose dynamic "speaker-mike" which functions both as a full-output communications-type loudspeaker as well as a dynamic microphone. It can be conveniently mounted or held near the operator's ear to overcome high ambient noise.



P31. Hand Pump

Bowser, Inc., Fort Wayne, Ind., has in production a new low-cost 20 gpm positive - displacement, self-priming, piston-type hand pump series. Available as a barrel or pedestal pump, or with hose and nozzle delivery for refueling of truck and tractor equipment on the job. Features claimed include stainless steel liner and shaft, aluminum body

(TURN TO PAGE 274, PLEASE)



No "Babies" Behind Bus Wheels!

Piloting a cross-country "sleeper" on schedule is a rugged job for rugged men – and rugged parts! Over hot desert highways or snow banked mountain roads – bus fleets face the most difficult operating conditions. That's one "Big Reason" why successful bus fleet operators place an overwhelming vote of confidence in BLUE STREAK special heavy-duty ignition parts. These smart bus men know how to save money on operating costs. *They demand* BLUE STREAK. Why don't you? For more information, write: Standard Motor Products, Inc. Long Island City 1, New York



BLUE STREAK

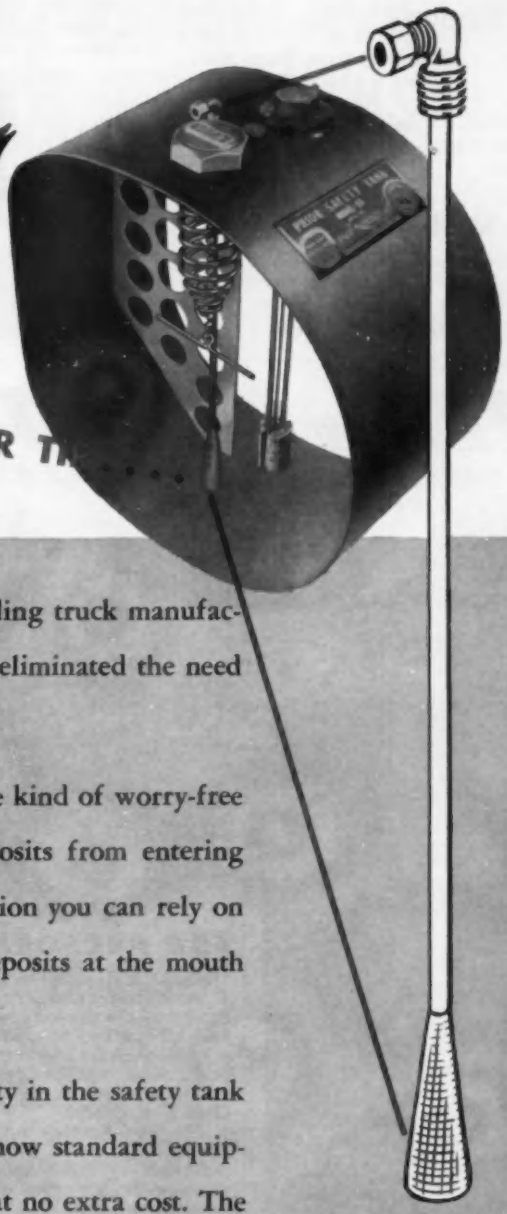
Heavy-duty Ignition Parts for Fleets

Coils • Condensers • Point Sets • Voltage Regulators • Switches
Rotors • Distributor Heads • Brush Sets • Wire & Cable

Prior

IS FIRST AGAIN

WITH A SPECIAL MONEL FILTER TI . . .



This is the same type of filter used by leading truck manufacturers in their tanks who have completely eliminated the need for filters in the fuel lines.

BUILT-IN PROTECTION . . . the kind of worry-free protection that prevents any foreign deposits from entering the fuel line . . . this is the kind of protection you can rely on with this new filter that stops harmful deposits at the mouth of the pick-up line.

One of the biggest advancements for safety in the safety tank industry in many years, this new filter is now standard equipment on all Prior Safety Gasoline Tanks at no extra cost. The new filter-tip removable fuel supply line can be easily installed in *any* Prior Safety Tank.

MONEL FILTER TIP

See your distributor or write direct to

PRIOR PRODUCTS, INC.

P. O. BOX 349 • MIDDLETOWN, OHIO
P. O. BOX 7608 • DALLAS, TEXAS

New Products

Continued from Page 272

and piston, corrosion-resistant valves, molded plastic bearing and built-in strainer.

P32. Marker Lamp

Grote Mfg. Co., Bellevue, Ky., has added a two-way beehive marker lamp to its line of safety accessories. The new lamp gives visibility to the front, side and rear. It is recommended for identification and to mark the outside extremity of pole trailers, projecting loads, saddle mount combinations or tow-away operations. Lamps are available with any combination of red, yellow, green or clear plastic lenses.

P33. Slip-Retardant Paint

Du Pont Finishes Division, E. I. Du Pont de Nemours and Co., Wilmington, Del., is introducing a new slip-retardant floor and deck paint. The slip-retardant agent incorporated in high quality enamel is non-metallic and thus sparkproof. The new anti-slip paint has proved effective where oil, grease and water cause slippery surfaces, says Du Pont. It may be applied by spray or brush.

P34. Interior Light

K-D Lamp Co., Cincinnati, Ohio, has just announced two new interior lights, KD 529SW with inbuilt toggle switch and KD 529 without switch. Clear shatterproof 5-in. plastic lens is designed to insure even intensity of light in all directions in the loading area of trucks and trailers. Flush type mounting avoids need for either disassembly or panel opening. Three screws hold lens. Rubber washers prevent dropping screws. Comes with 21 cp bulb in six or 12 volts.

P35. One-Ton Press

Denison Engineering Co., Columbus, Ohio, has developed a new one-ton press designed for assembling, riveting, punching, marking, trimming, pelleting, compacting, testing, straightening, broaching, swaging, etc. Features of this new press are:



duplicates ram pressure every stroke, precision ram alignment, fastest cycle time of any small press, simplest to set up, ample daylight to adapt tooling, interlocked manual controls eliminate accidental tripping of ram. It operates on 110 volts, 60 cycle single phase circuit, can be wired for operation on 220 volt single phase.

P36. Trailer Tire

Armstrong Rubber Co., West Haven, Conn., announces its trailer tire featuring an extra-mileage tread design with broader, flatter, 15 per cent deeper tread. It also allows

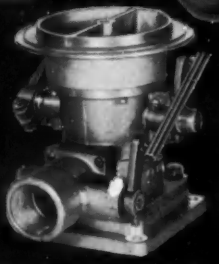
(TURN TO PAGE 278, PLEASE)

REO selects CENTURY
AS FACTORY STANDARD LP-GAS CARBURETION

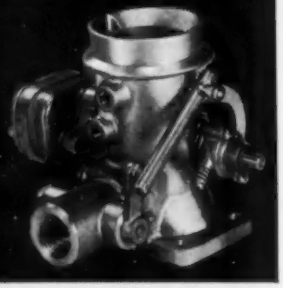
Exclusively
on Super V-63 Cab-Over Model
REO TRUCKS



Four-barrel, down draft Century metering valve carburetor factory installed on Super V-63 Cab-Over Reo Trucks.



Dual throat, down draft Century metering valve carburetor now optional equipment on all Reo Trucks.



FOR PERFORMANCE

ONLY THE BEST is good enough for *Reo* Trucks . . . and Century LP-Gas Carburetors have proved best by every test, in both laboratory and road operation. That's why Reo selected Century 3C (controlled combustion) Carburetors as exclusive factory equipment on the Super V-63 Cab-Over Reo Trucks.

The big difference in the Century 3C is the metering valve, and it makes a big difference in engine performance. Why? Because the metering valve controls and proportions the gas to give perfect fuel-air mixtures at any throttle setting – starting, idling and full power – regardless of changes in temperature, altitude or pressure. No wonder Reo has joined the ever growing list of manufacturers who install Century Carburetion. *Write for literature today! Sales and service everywhere.*

CENTURY GAS EQUIPMENT COMPANY
6855 East Rosecrans Blvd. • Paramount, California

UL 3C Controlled Combustion Carburetion

Set it!
Seal it!
Forget it!

CENTURY METERING VALVE LP-GAS CARBURETION

7,000 to 14,000 G.V.W. Now Available On DIVCO "DIVIDEND" TRUCKS



Operators have praised the new "Dividend" Truck for its 470 cu. ft. capacity and *now* are specifying it for heavier loads too!

Regardless of the load option you select, the new Model 42 is designed to fit the requirements of a wide range of delivery needs. It has greater maneuverability, almost passenger car ride, greatest possible freedom from corrosion, improved roadability at all speeds, removable side panels and is powered with a rugged valve-in-head Super 6 engine with synchromesh 4 speed transmission. All this is built into a rugged compact unit that gives maximum capacity with minimum occupancy of street or garage space. The entire power plant is easily accessible from inside the truck.

Contact your local authorized Divco sales and service representative and get a demonstration ride without obligation today.

Optional changes in this 130" wheelbase truck now permit rated GVW capacities of:
7,000 pounds
10,000 pounds
12,000 pounds
14,000 pounds*

*Available factory insulated and refrigerated

DIVCO TRUCKS

DIVCO CORPORATION
22000 Hoover Road
Detroit 5, Mich.

OVER 80% OF ALL DIVCOS PRODUCED SINCE 1927 ARE STILL IN USE!

BUDD WHEELS



- LONG LIFE
- DEPENDABLE
- ECONOMICAL

That, briefly, tells the story of Budd Wheels. But there's *more* to the story, chapters more:

- Budd's built-in alignment prevents wheel wobble and uneven tire wear.
- Budd's positive torque transfer prevents slippage between wheel and rim.
- Budd's experience, reputation and service policy stand behind every Budd product.

This is the Budd story . . . the reason why more than 100 million Budd wheels have been produced for the nation's automotive vehicles. This is the story that fleet owners know.

Interested?

THE BUDD COMPANY, Detroit 15, Michigan

Budd Wheel Distributors

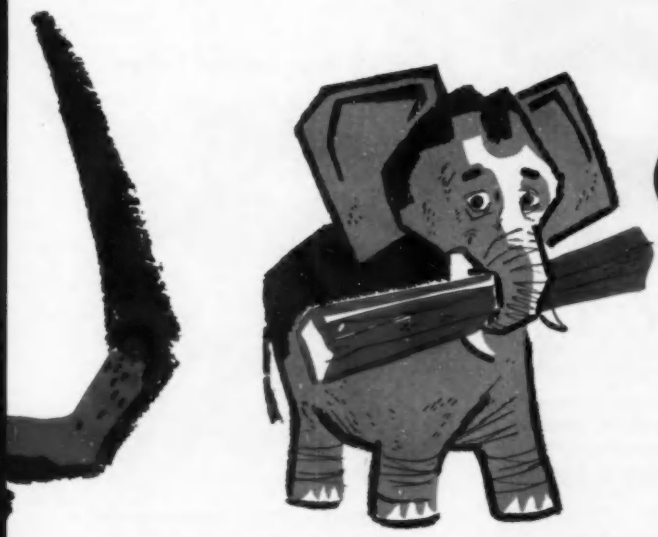
AKRON—Motor Rim Manufacturers Co.
ALBANY—Wheels, Incorporated
ALBUQUERQUE—Wheels & Brakes, Inc.
ATLANTA—John A. Heard & Son, Inc.
BALTIMORE—R. E. Harris & Sons, Inc.
BIRMINGHAM—Wheel, Rim & Parts Co.
BOSTON—New England Wheel & Rim Co.
BUFFALO—Frey Tire Equipment, Inc.
CHARLOTTE—Carolina Rim & Wheel Co.
CHICAGO—Stone Wheel, Inc.
CINCINNATI—Rim & Wheel Service, Inc.
CLEVELAND—Motor Rim Manufacturers Co.
COLUMBUS—Wayne Wheel & Spring Service
DALLAS—Southwest Wheel, Inc.
DAVENPORT—Stone Wheel & Rim Co.
DAYTON—Rim & Wheel Service, Inc.
DENVER—Quane & Mehlig Motor Supply Co.
DES MOINES—Des Moines Wheel & Rim Co.
DETROIT—H. & H. Wheel Service, Inc.
EVANSVILLE—Auto Wheel & Rim Service Co., Inc.
FARGO—Wheel Service Company
FORT WAYNE—Wheel & Rim Sales Co.
GRAND RAPIDS—Rim & Wheel Service Co.
HARRISBURG—Standard Wheel & Rim Co.
HARTFORD—Connecticut Wheel & Rim Co.
HOUSTON—Southwest Wheel & Equipment Co.
INDIANAPOLIS—Indiana Wheel & Rim Co.
JACKSONVILLE—Southeast Wheel & Rim Co.
KANSAS CITY—Borders, Young & Co.
KNOXVILLE—South Automotive Service, Inc.
LANCASTER—Standard Wheel & Rim Co.
LOS ANGELES—Wheel Industries, Inc.
LOUISVILLE—Auto Wheel & Rim Service
LUBBOCK—Southwest Wheel, Inc.
MEMPHIS—Keller Wheel, Brake & Supply Co.
MILWAUKEE—Acme Equipment Co., Inc.
MOLINE—Motive Wheel Co.
NASHVILLE—Keller Wheel, Brake & Supply Co.
NEWARK—Automotive Sales, Inc.
NEW HAVEN—Connecticut Wheel & Rim Co.
NEW ORLEANS—Southern Wheel & Rim Co.
NEW YORK—Wheels, Incorporated
OKLAHOMA CITY—Southwest Wheel, Inc.
OMAHA—Harper Wheel & Equipment Co., Inc.
PEORIA—Parson Wheel & Rim Co.
PHILADELPHIA—Kay Wheel Sales Co.
PHILADELPHIA—Tanner Wheel & Rim Co., Inc.



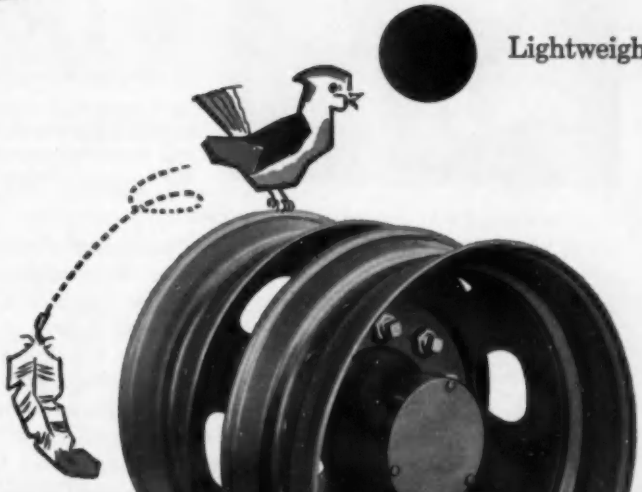
No Shimmy or Wobble



No Slip or "Shuck"



Greater Stability



Lightweight

PITTSBURGH—Wheel & Rim Sales Co.
PORTLAND—Six Rubbleers, Inc.
PROVIDENCE—New England Wheel & Rim Company
RALEIGH—Carolina Rim & Wheel Co.
RICHMOND—Dixie Wheel Co., Inc.
ROCHESTER—Frey Tire Wheelmen, Inc.
SALT LAKE CITY—Henderson Rim & Wheel Service
SAN ANTONIO—Southwest Wheel & Equipment Co.
SAN FRANCISCO—Wheel Industries, Inc.
SEATTLE—Six Rubbleers, Inc.
SOUTH BEND—Rice & Dice Wheel Sales & Service
SPOKANE—Bearing & Rim Supply Co.
SPRINGFIELD, ILL.—Illinois Wheel & Brake Co.
SPRINGFIELD, MO.—Barbeau, Young & Co.
ST. LOUIS—Barbeau, Young & Co.
ST. PAUL—Wheel Service Co.
SYRACUSE—Wheels, Incorporated
TACOMA—Six Rubbleers, Inc.
TOLEDO—Wheel & Rim Sales Co.
WICHITA—Barbeau, Young & Co.
WINSTON-SALEM—Motor Automotive Service

EXPORT

CLEVELAND—C. O. Brandes, Inc.

CANADA

CALGARY—Motors Supplies, Ltd.
EDMONTON—Alberta Wheel Distributors, Ltd.
MONTREAL—Auto Wheels & Supplies, Ltd.
TORONTO—Wheel & Rim Co. of Canada, Ltd.
VANCOUVER—Brooks & Equipment, Ltd.
WINNIPEG—Ft. Garry Tire & Auto Supplies, Ltd.

Budd

New Products

Continued from Page 274

trailers to stand idle without fear of sidewall checking due to the ozone resistant compound built into the tire, says Armstrong.

P37. Reefer Drive

Sundstrand Hydraulic Division, Rockford, Ill., has developed a new constant speed truck refrigeration drive unit. This new system will deliver up to 3 hp continuously. Three small, compact units comprise the system: a hydraulic pump; a 1½-qt oil reservoir including a filter; and the fluid motor which drives the compressor. While the input speed of the engine drive to the pump may vary in a range from 450 to 3000 rpm, the output speed of the fluid motor will hold at 1800 rpm, within 200 rpm. Vehicle engine can be started with no load imposed by the pump—built-in delay in the hydraulic system starts the compressor. It will sustain up to 6 hp for starting and short period overloads. For stand-by operation, it may be plugged directly into a power source. At engine idle, the system transmits power at a peak efficiency of 73 per cent.

P39. Windshield Kit

New England Products, Inc., East Greenwich, R. I., offers a windshield wiper mark remover kit. Kit unit is said to remove windshield marks caused by inefficient or lost wiper blades. Kit contains "Glazite" compound and buffing wheel.

P40. Diesel Primer

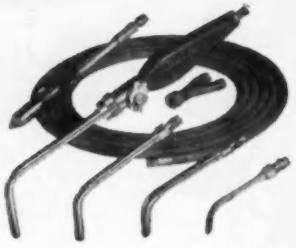
Kent-Moore Organization, Inc., Detroit, has just released a new fuel system primer for diesel engines, the Model No. J 5956 applicable to

(TURN TO PAGE 280, PLEASE)

FAST ★ CLEAN → ECONOMICAL

Prest-O-Lite Trade-Mark BODY SOLDERING OUTFIT





Outfit (illustrated) comes complete with hose, precision handle, "Y" connection, and interchangeable stems ready for use with standard welding cylinder.

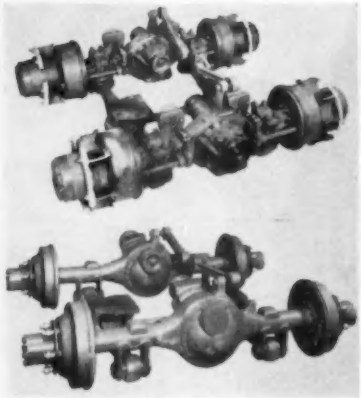
With the four different sized stems and soldering iron in this outfit you can handle any job from the heaviest body soldering down to the smallest spot repairs. Use it as an auxiliary to your standard oxy-acetylene welding and cutting outfit. Just attach the "Y" connection to the outlet of your acetylene regulator and operate both outfits from the same cylinder. The precision torch has a convenient shutoff valve and pilot flame control built into it for economical operation. Ask your local LINDE jobber for a demonstration or write for more details to LINDE AIR PRODUCTS COMPANY, a Division of Union Carbide and Carbon Corporation, 30 E. 42nd St., New York 17, N. Y. In Canada: Linde Air Products Company, Division of Union Carbide Canada Limited, Toronto.

GET IT FROM YOUR

LINDE JOBBER

The terms "Prest-O-Lite" and "Linde" are registered trade-marks of Union Carbide and Carbon Corporation.

Clark's New Tandem Drives



Axle Division, Clark Equipment Co. announces two new heavy-duty tandem drive axles. One has a 28,000-lb ground loading capacity with an over-the-end static loading of 48,000 lb. The other is in the 45,000 to 50,000-lb ground loading range with an over-the-end static rating of 72,000 to 90,000 lb. Features are double reduction carrier with spiral bevel gears, full floating type axle with housings designed for static loads necessary for crane carriers and other off-highway use, through-type drive to obtain minimum mounting height, planetary drive at wheels to eliminate torsional wind-up in the shafts. Clark says this last feature makes possible a reduction in shaft size and other components and less wear because of lower torque load on differential and shafts. Equalizer beam and torque rods are rubber mounted, eliminating lubrication. Wheels are cast spoke type for 20-in. demountable rims. Three tire sizes can be used, 10.00 x 20, 11.00 x 20 and 12.00 x 20, including tubeless. For further details, circle P-50 on the postcard on page 52.

Line construction bodies for light to heavy-duty. Crew compartments optional. Efficient tool compartments and drawers.



Bodies for truck driven air compressors. Designed to accommodate hose reels, tapping machines, jack hammers, etc.



Service bodies for chassis up to 1½ ton. Lengths, 72", 75", 84", 90" and 102".



Hydraulic Derricks designed for front or rear mounting. Capacities to 12,000 lbs.



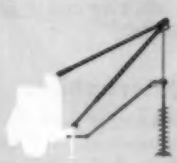
Light-duty power operated derricks for front or rear mounting. Operating range of 146°.



Ladders to 40' with all phases completely hydraulic. Pump actuated by P.T.O. or separate engine drive with electric starter.



Mechanical Ladders expertly engineered and counterbalanced for effortless handling. Maximum heights from 23' to 40'. Swings 360°; angles to 72°.



Portable mechanical and hydraulic earth borers with optional rotation.

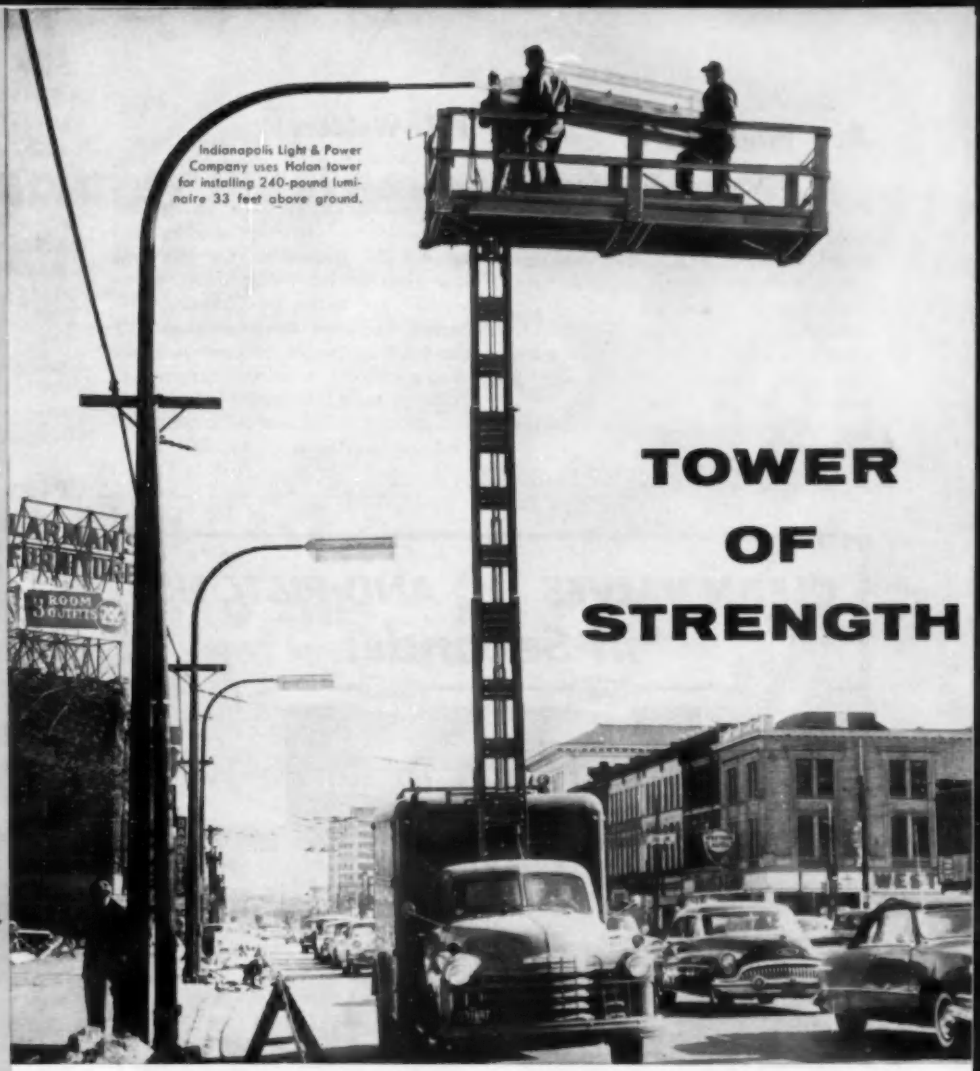


Wide variety of pole and reel trailers. Standard and special. Many optional features.



Hydraulic jacks, controlled from rear of truck. Rigid mounted or patented Holan self-stowing types.

Hydraulic towers with rotary, stationary, or transverse platforms. Exclusive box-girder telescoping mast.



Indianapolis Light & Power Company uses Holan tower for installing 240-pound luminaire 33 feet above ground.

TOWER OF STRENGTH

Holan hydraulic towers make high-up work safe and easy . . . like working on the ground.

A powerful, telescoping double-acting cylinder, supported by a telescoping box section, smoothly lifts the platform into the sky. Every movement of the platform — up or down, around or sideways — is controlled by push-buttons from the platform or the cab.

For crew safety, there's a 3-foot side railing and insulation throughout. All told, you have the last word in convenience, safety, and easy maintenance.

If you work high up, get the low-down on Holan hydraulic towers.

THREE TYPES



Transverse platform — moves laterally, 11 feet* either way. 4' by 7' platform.
*Can be made to move laterally 14 feet for special applications.



Rotary platform — rotates 330°. 4' by 11' platform.



Stationary platform. 4' by 7' platform.

Three models for each type — maximum heights of 17', 23'6" and 30'. Can also be furnished for 35' height. All towers collapse to about 10'3".

J.H. HOLAN CORPORATION

4100 WEST 150TH STREET
CLEVELAND 11, OHIO

OTHER PLANTS:
HOLAN CORPORATION OF GEORGIA, Griffin, Ga. • J. H. HOLAN CORP., Phoenix Div., Arizona
BRANTFORD-HOLAN LIMITED, Brantford, Ontario

THE NAME THAT MEANS WORK SIMPLIFICATION

New Products

Continued from Page 278

GM Detroit diesel engines, Buda diesel engines, and others. Particularly valuable after engine or head overhauls as an engine starting aid, Kent-Moore says this new primer insures a fuel supply throughout the fuel system before starting and also reduces wear and tear on batteries and starting system, especially during cold weather.

P41. Welders

Air Reduction Co., New York City, has available three new arc welding machines—a DC rectifier, an AC/DC rectifier for metallic arc welding, and an AC/DC Heliwelder for inert-gas and metallic arc welding. DC "Bumblebee" arc welder has improved selenium rectifiers designed especially for welding service to convert alternating current to direct current. It features a single range of current adjustment, is available in 200, 300 and 400 amp models. AC/DC "Bumblebee" rectifier will supply either AC or DC current by the flick of a switch. Patented control circuit eliminates need for any mechanical type control and selenium rectifiers are specifically designed for welding duty. It is available in 200, 300 and 400 amp models, with or without power factor correction. AC/DC "Heliwelder" machines are available in 200 and 300 amp models, are designed for use with the various inert-gas arc welding processes in addition to metallic arc-welding.



Valve cleaning time has been reduced to a new record time of ten seconds by the Kleer-Flo HANDI-MASTER that can also be easily converted to do a host of other important shop jobs.

The valve up to a ½" stem is locked into place in the chuck of the unit and is rotated rapidly by a ⅓ H.P. motor. A series of ingenious metal, spring-mounted cutters and scrapers then contact the valve to remove deposits from all surfaces, including those valves that have depressed crowns. No air compressor, cleaning device, or other power source is required.

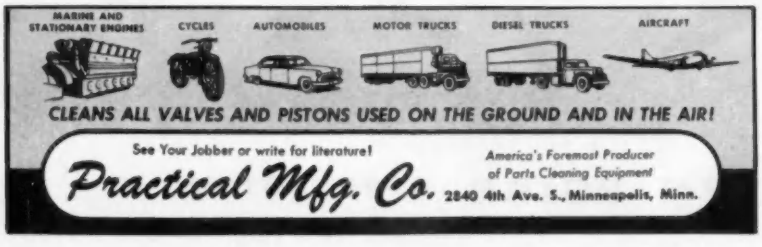
The portable Kleer-Flo HANDI-MASTER can be wheeled anywhere in the shop and can be converted for many other shop uses such as a horizontal drill press or as a remote controlled sander, buffer, grinder or drill.

The time-consuming hand and abrasive methods of piston cleaning are now obsolete with the fast and thorough Kleer-Flo PISTON-MASTER that will gently clean any piston now on the market or foreseen.

The Kleer-Flo PISTON-MASTER releases skilled labor from a lengthy, tiresome and difficult chore, doing a more thorough and precise job in seconds than formerly was possible in hours.

A continuous flowing liquid solvent aids the cleaning action of the brushes in the unit. After reassembly, no sand or abrasive is present to endanger scoring cylinder walls and bearings.

A PISTON-MASTER belongs in every service shop to drastically cut cleaning costs and add to profits.



P42. Air Compressors

Emglo Products, Johnstown, Pa., announces a new line of specially priced, heavy duty, two stage air compressors in a wide range of sizes and mounting arrangements. Ratings through five horsepower in horizontal



and vertical tank mountings, base mountings and bare compressors are stocked. Larger sizes will be ready in the near future. The two stage air-cooled compressors feature large bore and stroke, slow speed, Timken main bearings, intercooler and after cooler, large fan and grooved flywheel, and loadless start by means of a centrifugal unloader.

P43. Microphone

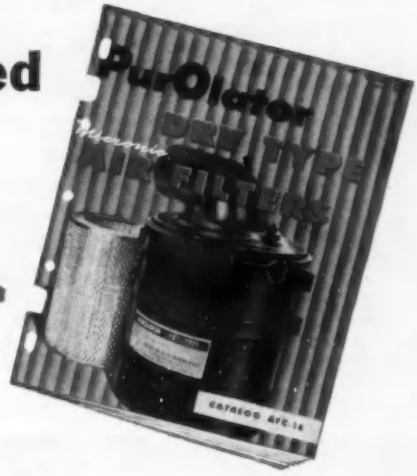
Radio Corp. of America, New York City, announces a transistorized microphone designed specifically for two-way mobile communications in public safety, industrial, and land transportation radio service. It is interchangeable with conventional mobile carbon microphones used in these applications and provides appreciable improvement in intelligibility, voice quality, and reliability of mobile radio communications.

P44. Battery Service Kit

E. Edelmann & Co., Chicago, announces a kit for one-stop battery

(TURN TO PAGE 282, PLEASE)

This handsomely illustrated 36-page catalogue...

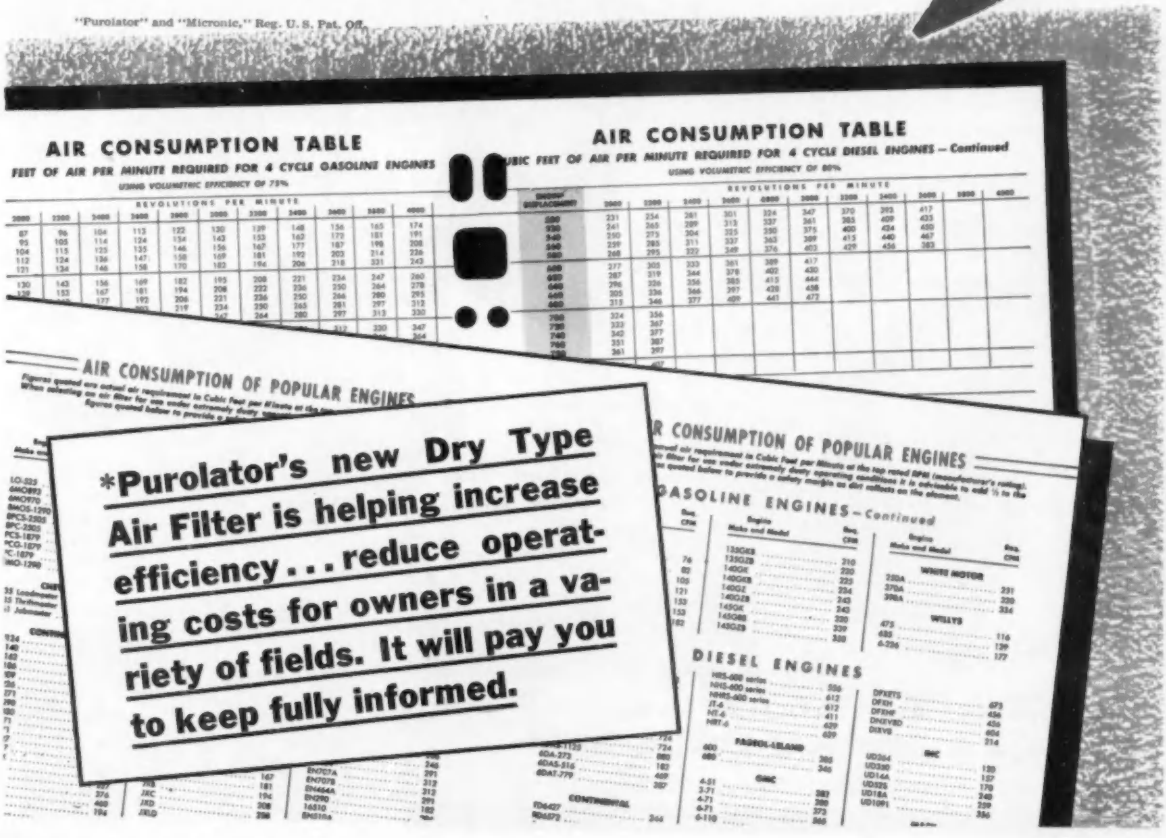


is packed with helpful data* like this...

Write for your copy today. Use your letterhead.
Give title or department, please. Supply is limited.

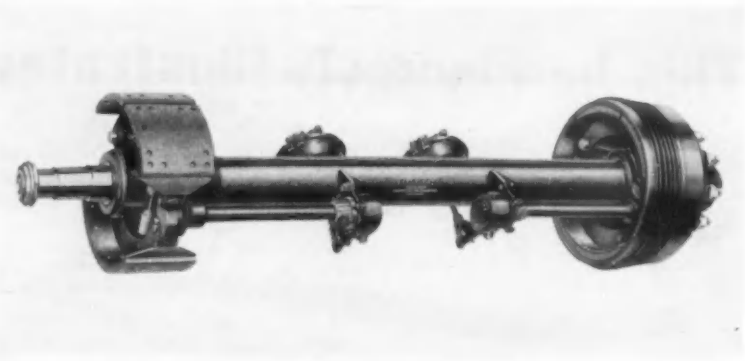
AIR FILTER INFORMATION
PUROLATOR PRODUCTS, INC.
Rahway, New Jersey and Toronto, Ontario, Canada

"Purolator" and "Micronic," Reg. U. S. Pat. Off.



Saves 140 lb per Axle

Timken - Detroit Axle Division, Rockwell Spring and Axle Co. announces its new Model No. TK-500 Series 18,000-lb axle. Timken-Detroit says they are 140 lb lighter than previous models. Weight savings come from hot-pierced spindles made hollow all the way through, rust-proofed chrome-plated anchor pins with free rolling construction, lighter weight steel hubs with strengthened wall section, lighter weight design pressed steel brake shoes, nylon camshaft bushings and supports to reduce friction. For further details, circle P 49 on the postcard on page 52.



CONTOUR TRUCK GUARDS, Inc.

— Exclusive National Distributors —

38 So. Dearborn St. Chicago 3, Ill.

Phone: STate 2-7576

- Gives GREATER AIR CIRCULATION OVER TIRES and BRAKES — Dissipates heat faster.
- All Contour Shaped to eliminate BOTH BACK and SIDE splash.
- Can be built up or down to any desired or required length. Sections Replaceable.
- Sectional construction — All curved sections interchangeable.
- Fits all type Trailers and Trucks.
- ABREAST OF THE TREND OF MAXIMUM SPLASH PROTECTION.

FLEXI-FEND

All Metal Sections with Moulded Rubber Skirt.



SAFE-GARD

Metal where strength is required—Molded rubber edge & skirt for flexibility.





Complies With ALL STATE FLAP LAWS Including the NEW ILLINOIS FLAP SPECIFICATIONS

FLEET DISCOUNTS ON DIRECT ORDERS

New Products

Continued from Page 280

servicing compactly designed to hold all essential battery service tools and sufficient water. Features include ¾ gal water capacity, an easy-grip carrying handle, and compartments with drain holes for tools, cloths, etc.

P45. Engine Heater

Tech Products, Inc., Elizabeth, N. J., announces a new engine pre-heater. The "TPI" heater is designed to main-



tain gasoline or diesel engines at operating temperatures even when stored out in the open air in the coldest weather conditions says Tech.

P46. Air Compressor

DeVilbiss Co., Toledo, Ohio, announces a new 1/3-hp air compressor. The complete unit consists of compressor, electric motor and air tank. The unit will operate from ordinary electric lighting circuit.

END

Please Resume Reading Page 56

IT'S ALWAYS EASIER... WITH *Cordomatic!*



YOU'LL ALWAYS SAVE TIME WITH *Cordomatic®* DROP LIGHT REELS



- Increases garage efficiency!
- Outlasts a dozen ordinary drop lights—pays for itself in no time!
- Eliminates hazards of fire, shocks and tripping!
- Mounts easily on wall or ceiling!
- Works like a window shade—automatically retracts when not in use!

Crack-proof, easy grip handle with Levolier toggle-action switch . . . Swing-open lamp guard for quick bulb change . . . Oil & water resistant, kink-proof Neoprene cord!

Cordomatic REELS are available in 20', 30' and 40' cord lengths.

PRICES START AT **$9.95**

Mr Cordomatic SAYS

"Write me today for free catalog and name of your nearest Cordomatic Jobber."



Cordomatic®
Dept. C, 17th & Indiana Ave., Philadelphia 32, Pa.

GMC's Light and Medium Duty for 1956

Continued from Page 160

is offered in 100-300 models. Another with 140 hp against the former 130-hp engine is offered in the model 350 and 370 medium-duty trucks.

New package delivery models have a 6-cyl engine achieving 120 hp instead of last year's 105. All of these sixes have 270-cu in. displacement.

Road Shock Dampers

Two advancements in riding comfort and steering safety make their bow in the improved light- and medium-duty trucks. Road shock dampers, with floating weights that counteract road jolts by dynamic vibration absorption (described in detail, CCJ, Jan., page 91), are standard on GMC Suburbans and optional on other half-ton models.

"Kudu" stabilizers, whose metal braces resemble the horns of the striped antelope or kudu, are factory installed on all 100-250 models. Two metal braces run from the engine side of the cowl fire wall to the frame, anchoring the body securely to the frame and providing a smooth, vibration-free ride. Tubeless tires are standard equipment on all new GMC models.

Axles

Optional on standard transmission 300-370 series models, a new wide-range, one-shift axle (described in detail, CCJ, Jan., page 91) is also teamed with all Hydra-Matic transmission in 370 models. Its high and low ranges are spaced to permit obtaining progressive gear combinations with a single shift of the axle, accomplished by simply flicking a lever on the steering column.

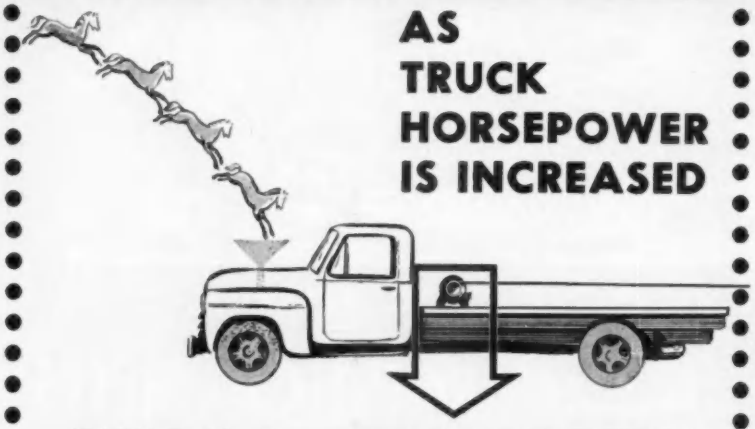
Its low gear ratio with as much as 18 to 1 reduction uses full engine power to start up a fully loaded truck, and its high ratio assures peak cruising performance. As the two-speed, double-reduction axle is self-contained, gear reduction boxes are unnecessary.

Another major axle development is the fast-ratio cruising axle that is optional on 100 series models. Combined with either Hydra-Matic or syncromesh transmissions, the axle is said to give fuel economy similar to that achieved with overdrive at a fraction of the overdrive cost.

Available also are axles that boost the gross vehicle weights and heighten the load-hauling abilities of 300 and 370 truck models. Either Hydra-Matic or syncromesh transmissions are used on every model in the light- and medium-duty bracket, with Hydra-Matic drive available in every model series.

In addition to complete conversion to 12-volt electrical systems,

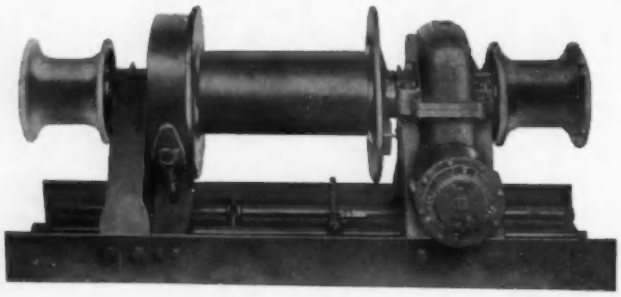
(TURN TO PAGE 288, PLEASE)



AS TRUCK HORSEPOWER IS INCREASED

TULSA® WINCHES

ARE STRENGTHENED AND IMPROVED TO TAKE ADVANTAGE OF THIS AVAILABLE POWER



Over 28 models to choose from with capacities from 6,000 to 100,000 pounds . . . breaking point is OVER TWICE the rated capacity. See your nearest TULSA WINCH distributor for complete details.

Tulsa Winch
TULSA, OKLAHOMA DIVISION OF VICKERS INC.

Engineered FOR THE Tough Jobs

....CONTINENTAL RED SEAL POWER



The new 4-wheel drive Oshkosh 50-50 ready-mixed concrete carrier is built to haul up to 5 cubic yards legally, with enough water for ready-mixed concrete operations. Its Continental Red Seal B6427 engine is cantilevered forward of the front wheels, distributing the load equally between the two axles, and making the unit conform to maximum load limits in most states . . . Continental F4162 engine driving the 4½ cu. yd. Rex Adjusta-Wate Moto-Mixer is mounted at rear of the machine, making possible the most efficient load distribution over all axles, for carrying maximum payload.

When it comes to tough jobs, the hauling of ready-mixed concrete ranks well toward the top of the list. It takes a real engine merely to move such a monster as this, to say nothing of lugging it over all sorts of terrain in order to spot the load. Continentals have been known for dependability for more than half a century. Their famous in-built stamina is earning them a place in more and more of today's heavy-duty equipment, not only in transportation but in industry and farming as well. Every Continental Red Seal is built for the job in which you find it—and backed by service and parts facilities coast to coast.

OPPORTUNITIES FOR ENGINEERS
Continental Motors and its subsidiaries have numerous openings for engineering personnel interested in challenging careers in gas turbine and reciprocating engine development. For information, address Engineering Personnel Dept., 12800 Karchval Ave., Detroit 15, Mich.

Continental Motors Corporation

MUSKEGON • MICHIGAN

CONTINENTAL MOTORS ® Powerful as the Nation AMERICA'S STANDARD

6 EAST 45TH STREET, NEW YORK 17, NEW YORK • 6218 CEDAR SPRINGS ROAD, DALLAS 9, TEXAS • 3817 SOUTH SANTA FE AVENUE, LOS ANGELES 58, CALIFORNIA • 1252 OAKLEIGH DRIVE, EAST POINT (ATLANTA) GEORGIA

"Our Ford Big Jobs haul up to



On-the-job snapshots show 2 of the 27 Fords in the Tanis Truck Fleet working under difficult off-road conditions.

BIG FLEET OWNERS BUY MORE FORD CARS AND TRUCKS THAN ANY OTHER MAKE!

3,000 lbs. more payload!"

"This means more profit per trip and lower operating costs. That's why all our 27 trucks are Fords."



MR. JOEL TANIS, Jr.
Joel Tanis and Sons, Inc.
Cement Contractors, New Jersey

Husky chassis construction specially engineered to get rid of unnecessary dead weight convinced Joel Tanis and Sons that Ford Trucks are best for their operation. That's why their fleet now runs from Ford Pickups to BIG JOBS—their newest truck is a 1956 T-800 with a 6-yard mixer body.

As Mr. Joel Tanis, Jr. says, "The 3,000-lb. extra payload carried by our Fords over other trucks in the same GVW class really boosts profits. Also the T-800 chassis costs quite a bit less than comparable competitive makes."

The new Ford T-800 is a rugged 42,000 lb. GVW unit engineered, built and rigorously tested for tandem duty at its toughest. Power steering that cuts steering effort as much as 75% is standard. You can choose either the 190-h.p. *Torque King* V-8 or the 200-h.p. *Torque King* Special V-8 engine.

Is your Fleet getting the most PAY out of the payload?

Ford builds over 290 models from Pickups to tandem-axle BIG JOBS. And for '56, Ford Extra Heavy Duty Trucks give you big GCW increases to let you haul as much as 5,000 lbs. more pay load. No other line of trucks, rated for such big loads, is priced so low as Ford!

No other truck line gives you all these heavy-duty engine features for longer life: Short Stroke power for less friction; stress-relieved cylinder heads to resist distortion; sodium-cooled exhaust valves with integral valve guides that run up to 225° cooler than solid-stem type; exhaust valve seat inserts of tungsten-cobalt alloy to maintain high engine output; rigid, deep-skirt crankcase for longer bearing life.

Only Ford Trucks give you such Lifeguard safety features as deep-center steering wheel and double-grip door latches. New Ford seat belts available, too. For *all* details, talk to your Ford Dealer! *Find out why the big fleets buy more Ford Cars and Trucks than any other make.*

FORD TRUCKS LAST LONGER

Certified by independent insurance actuaries for the ninth consecutive year! Current license registrations show that Ford Trucks last up to 9.9% longer.

GMC for 1956

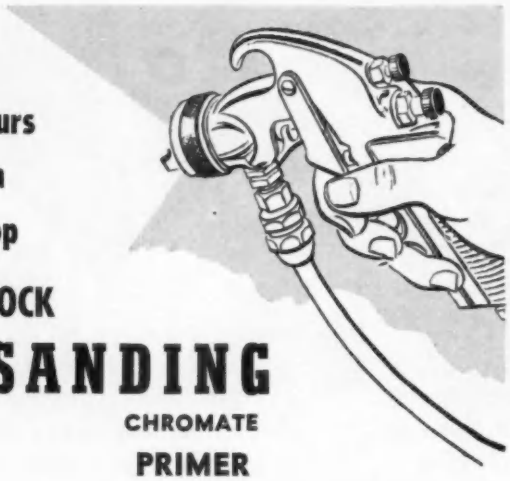
Continued from Page 284

other electrical features are new "T-3 Guide" new type, sealed beam headlamps, brighter tail lamps, key-type starting switches with safeguard fuses, and suppressor wiring to eliminate radio and TV interference.

Other features of the 1956 light- and medium-duty GMC's include power steering as optional equipment on models 100-250, improved V-8 engine mountings that are extra-sturdy and curb vibrations, and an optional power take-off gear box for power take-off conversions in Hydra-Matic models 350 and up. A new 6-stud wheel is standard equipment on all 350 and 370 series models.

END

Please Resume Reading Page 162



Save man-hours and money in the paint shop with METALOCK

NON-SANDING CHROMATE PRIMER

The paint foreman has found that METALOCK NON-SANDING Chromate Primer saves time and eliminates one of the shop's worst jobs — sanding.

METALOCK NON-SANDING Chromate Primer sets up rapidly, producing a durable, satin finish with angular sheen appearance, insuring a greater depth and higher gloss in the finished coat.

METALOCK NON-SANDING Chromate Primer goes further too. It is reduced 3 parts Primer to 2 parts S-78 Synthetic Reducer.



METALOCK has proved a boon to many fleets and body builders. It might well do the same for you. Why not find out? Write or contact HOCK PAINTS, INC., Phoenixville, Penna., for particulars or order a trial gallon of Primer and Reducer.

(Agent inquiries invited)

METALOCK REG. U. S. PAT. OFF. NON-SANDING CHROMATE PRIMER

Call on us for all your Automotive Finish Requirements

Leasing Regs

INTERSTATE Commerce Commission has proposed several changes in its leasing regulations now scheduled to go into effect July 1, 1956. Interested carriers have until April 23, 1956, to submit written comment to the ICC.

New sections or amended wording include the following:

Sec. 207.5 (c) (2) Authorized common carriers, holding certificates of public convenience and necessity from this Commission authorizing the transportation, in interstate or foreign commerce, over irregular routes, of household goods as defined by the Commission, may perform a thorough movement in the transportation of household goods without a change of drivers at point of interchange.

Sec. 207.6 (a) Renting equipment with drivers. Unless such service is specified in their operating authorities, authorized carriers shall not rent equipment with drivers to private carriers or shippers, except where the vehicle so rented is to be used for transportation which may be performed for compensation within the exemption provisions of Sec. 203 (b) (7) or (8) of the Interstate Commerce Act.

Sec. 207.5 (f) Identification of equipment. Authorized carriers operating power units in interchange service shall identify such equipment in accordance with the Commission's requirements in Ex Parte No. MC-41, Part 166, Identification of Motor Carrier Vehicles. Any removable device used to identify the operating carrier shall be on durable materials such as wood, plastic, or metal, and shall bear a serial number in the operating carrier's own series and such carrier shall keep a proper record of each identification device in use. The authorized carrier operating equipment under these rules shall remove any legend, showing it as the operating carrier, displayed on such equipment, and shall remove any removable device showing it as the operating carrier, before relinquishing possession of the equipment. Authorized carriers operating equipment in interchange service under this section shall carry with each vehicle so operated, except trailers and semitrailers, a copy of the contract, or other arrangement, while the equipment is being operated in the interchange service, unless a statement certifying that the equipment is being operated by it and identifying the equipment by company or state registration number, showing the specific point of interchange, the date and time of the assumption of responsibility for the equipment, and the use to be made of the equipment, is carried in the vehicle while it is operated in interchange service. Such statement shall be signed by the parties to the contract or other arrangement or their employes or agent.

207.6 (b) Rental of equipment without drivers. Authorized carriers, except those transporting property wholly for and on the billing of railroads, shall not rent equipment without drivers to private carriers or shippers, except where the vehicle so rented is to be used for transportation which may be performed for compensation within the exemption provisions of Sec. 203 (b) (7) or (8) of the Interstate Commerce Act..

Burned Up By Belt FAILURE?



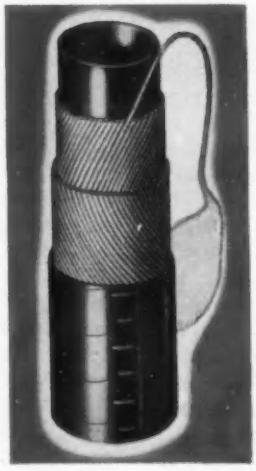
Then It's Time To Equip Your Fleet With Dependable, Long-Lasting Dayton Cog-Belts*

You can stop excessive belt failures right now—and cut your belt replacement costs by as much as 66%. Just install rugged Dayton Cog-Belts with the exclusive, patented *molded* cog construction that provides up to 2/3 longer belt life.

The cogs allow the belt to bend as easily as your finger. Therefore, Dayton Cogs cannot build up the belt-breaking heat caused by the compression strains of less flexible belts. They run cooler, give thousands of extra service miles.

Write today to Dayton Rubber Company, Automotive Division, Dayton 1, Ohio, for the assistance of an experienced Dayton Fleet Engineer. He'll be happy to make a survey of your fleet and recommend the correct belts to meet your requirements with a minimum inventory.





DAYTON FLEET ENGINEERS ARE ALWAYS AVAILABLE TO ASSIST YOU ON ANY BELT OR HOSE PROBLEM.

DAYTON RADIATOR HOSE—highly flexible to protect radiator outlets—heat and oil resistant. Available in 3' lengths in 21 most used sizes. Specially designed for heavy-duty truck, bus and tractor use.

DAYTON COG BELTS—a complete line unequalled for low-cost, heavy-duty belt service. Patented, molded Cogs resist destructive heat build-up while die-cut raw edges insure full grip and power.

Dayton Rubber

51 YEARS OF PROGRESS

GET IT FROM YOUR JOBBER

DAYTON RUBBER COMPANY ACTIVELY SUPPORTS THE AMERICAN TRUCKING ASSOCIATIONS, INC.

Diamond T Diesel Tilt-Cab

Continued from Page 162

application of the exhaust-driven turbo-supercharger. The turbine secures its power from the inertia and expansion of the exhaust gas. The crankshaft is not required to furnish the power for the supercharger drive, and full engine output is available at flywheel.

Complete cab, cowl and fender assembly tilts forward manually so that the entire front end area is "wide open" for inspection and service. Engine, clutch and transmission is fully exposed for ready attention at bench height, says Diamond T. There is ample room for the mechanic to stand up at his work and he is unhampered by obstructions.

Controls are not disturbed when the cab is lifted. A large floor section, with pedals and base of steering column, remains stationary with the chassis. Universal joints in steering column and gearshift control shaft allow this assembly to pivot naturally as the cab is raised. Control rods are rigid and positive in action.

Cab Features

Cab itself is of all-steel construction 84 in. in overall width. Windshield has a total of 1850 sq in. and is of glare-reducing, heat-resisting "Solex" safety plate glass. Separate driver and companion seats are supplied, with driver's seat foam rubber cushioned, and provided with a 4-way adjustment in a range of several inches.

Standard Specifications

Major specifications include the Rockford 15-in. single plate clutch, Fuller 5A650 heavy-duty 5-speed overdrive transmission, Timken FD-900 front; and Eaton 18803 2-speed rear axles. Side rails are high-tensile steel with straight channel sections 8 1/16 x 3 1/32 x ¼ in. Heavy-duty 12-volt electrical system includes 50-amp generator and four 6-volt batteries with a total of 300 amp-hr capacity.

Front springs are 60 x 3 in., with heavy-duty double-acting hydraulic shock absorbers built in as part of the front suspension system. Rear springs are of Diamond T's "V-R" variable-rate design, and self-adjusting to conditions of load.

In the Model No. 723CJT, Diamond T has provided an option of several single-speed rear axles with the Fuller 8-speed R46 transmission. Options include the Eaton 1893 which is the single-speed equivalent of the standard 18803, also the Eaton 1911 which is identical in design but with heavier housing, gears and shafts, and also the Timken hypoid R100 which is favored for extra-heavy-duty service.

END

Please Resume Reading Page 164

Smart Fleet Operators specify

MASTER-Retreaded Tires



For EXTRA LIFE — RETREADS GUARANTEED

EXTRA ECONOMY | EXTRA SAFETY

Fleet operators who keep accurate records know that quality truck or passenger tires can be MASTER-Retreaded many times with complete safety. They know that MASTER-Retreads perform like new tires but cost half as much; a very important point, especially when dealing with giant tires.

Only MASTER-Retreaded Tires bear the seal of quality of the Tire Retreading Institute; only a Master-Retreader appointed by the Institute is authorized to mold it into the tires for your protection, and to display it in his shop.

For economy, service and satisfaction, deal with a Master-Retreader.

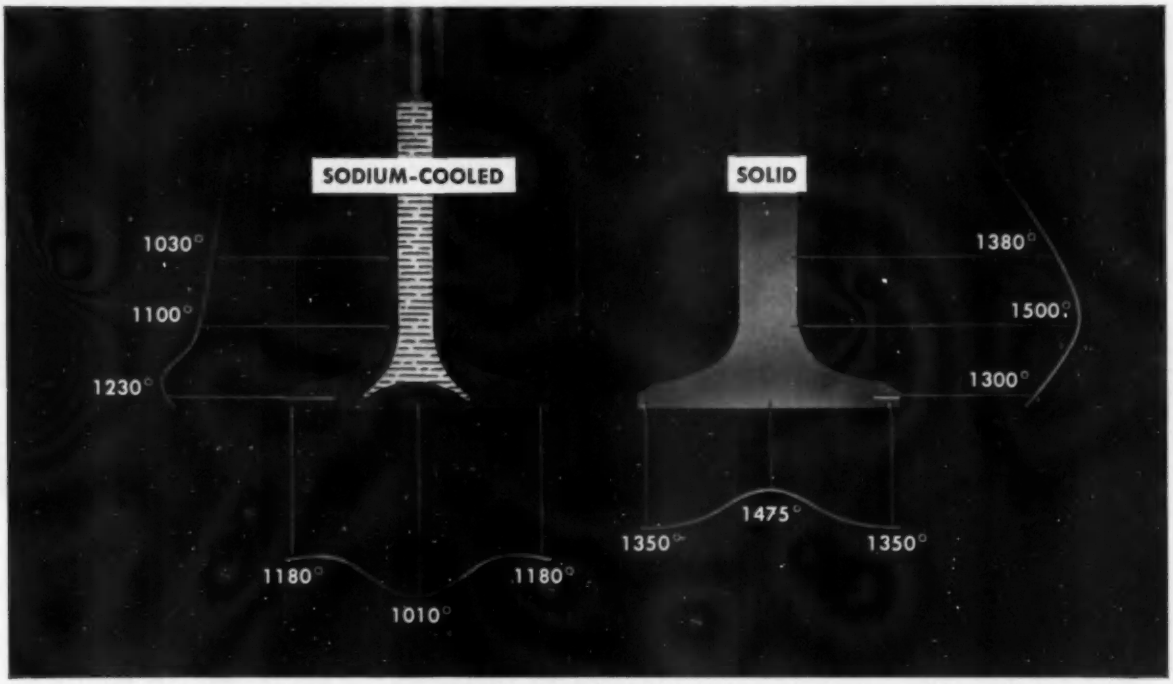
For the name of your nearest T.R.I. Master-Retreader, write to:

TIRE RETREADING INSTITUTE
1012 Fourteenth St., N. W. • Washington, D. C.

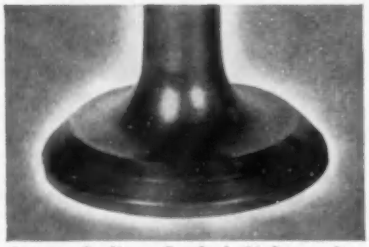


Look for this sign of the T.R.I. Master-Retreader

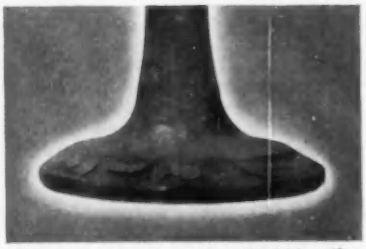
Eaton Sodium-Cooled Valves Run Cooler—



These curves show operating temperatures of Sodium-Cooled and Solid Valves under similar conditions of high output.



Eaton Sodium-Cooled Valve after 110,000 miles—still in good condition.



Conventional valve after 35,000 miles in same type of operation as Sodium-Cooled Valve shown above.

Cooler Valves Last Longer

Today's trend in engine design toward higher speeds and more economical fuel-air ratios results in higher temperatures for many operating parts—including exhaust valves. These higher temperatures sharply reduce valve resistance to corrosion and distortion, definitely limiting valve life. Eaton Sodium-Cooled Valves, operating at considerably lower temperatures, maintain corrosion resistance and strength.

In general, maintenance of Eaton Sodium-Cooled Valves in heavy-duty truck engines is scheduled only at time of major engine overhaul. No in-between trips to the shop are necessary for valve servicing. Engine output is maintained at high levels over long mileages. In many millions of miles of heavy-duty operation, Eaton Sodium-Cooled Valves have proven their ability to keep trucks on the road and out of the shop.

Eaton engineers will be glad to work with you in applying the benefits of Sodium-Cooled Valves to your engines.

EATON

VALVE DIVISION
MANUFACTURING COMPANY
9771 FRENCH ROAD • DETROIT 13, MICHIGAN

PRODUCTS: Sodium Cooled, Poppet, and Free Valves • Tappets • Hydraulic Valve Lifters • Valve Seat Inserts • Jet Engine Parts • Rotor Pumps • Motor Truck Axles • Permanent Mold Gray Iron Castings • Heater-Defroster Units • Snap Rings Springtites • Spring Washers • Cold Drawn Steel • Stampings • Leaf and Coil Springs • Dynamatic Drives, Brakes, Dynamometers



NOW! THREE TYPES OF

Multi-Luber*

SYSTEMS TO MEET ALL YOUR REQUIREMENTS

AIR-OPERATED

Designed for use wherever compressed air is available as motive power. Applications include *Trucks*, *Trailers* and *Buses* equipped with air brakes. May be actuated automatically (for example, with every brake application) or manually at the operator's discretion.

VACUUM-OPERATED

Ideal for equipment ranging from *light trucks* and *automobiles* to *fork-lift trucks*. Installation for manual or automatic operation. Where manual actuation is preferred, as on vehicles equipped with hydraulic brakes, a control panel is provided . . . with push button and signal light to indicate completion of the cycle.

MANUALLY-OPERATED

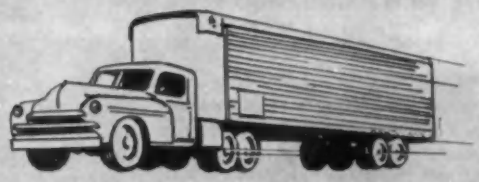
Designed for use where neither compressed air nor vacuum is available. Applications include *Farm Implements* and electrically driven *Fork-Lift Trucks*. At the push of the handle, an exact amount of lubricant is applied to each bearing.

*Registered Trade Name

LE → *Imagination for Automation* **Lincoln**

OVER 300 FLEETS ALREADY USING THE LINCOLN MULTI-LUBER

while the fleet's away!



Lincoln Multi-Luber SYSTEMS

provide on the road

AUTOMATIC POWER LUBRICATION

Here's proper protection *while* your "payloads" roll! Only Lincoln Multi-Luber provides the simplest, most dependable method for positive, periodic lubrication of all bearings, *automatically*, while your equipment is operating!

One fleet owner reports Multi-Luber extends inspection time up to 150,000 miles . . . and savings up to 90% per single overhaul. But that's not all! Look how a low cost investment in Multi-Luber increases operating efficiency . . . cuts maintenance costs!

1. MULTI-LUBER eliminates man-hours and equipment down-time required for conventional chassis lubrication.
2. MULTI-LUBER increases operating efficiency of equipment to a uniform maximum.
3. MULTI-LUBER increases service-life of bearings and moving parts . . . reduces cost of replacing bearings damaged due to inadequate lubrication.
4. MULTI-LUBER reduces stocks of replacement parts.
5. MULTI-LUBER prevents waste and contamination of lubricant . . . sealed System assures application of refinery-clean lubricant each time Multi-Luber is cycled.

*writes Mr. Orval J. Lindell

Superintendent of Maintenance
CONSOLIDATED FORWARDING COMPANY, Inc., St. Louis, Mo.

"Of primary importance to us is the fact that the Multi-Luber System guarantees uninterrupted lubrication when the trailer is interlined. Our minds are at ease because we know that all bearings are being properly lubricated when the trailer is away from 'Home Base'."

ENGINEERING COMPANY
5701 Natural Bridge Ave. • St. Louis 20, Mo.

LINCOLN ENGINEERING COMPANY
5701 Natural Bridge Ave., St. Louis 20, Missouri

Please send me my free copy of Bulletin 528 giving complete details on Lincoln *Automatic* Power Lubrication Systems.

Name.....

Company.....

Address.....

City.....Zone.....State.....

NATIONAL SALES AND SERVICE THROUGH LEADING WHOLESALERS

April News Roundup

Continued from Page 164

how to get employee interest and operate such programs. The need for a specific educational approach for safety and operating employees whose activities are directly related to matters of public interest.

The meeting also will mark the kick-off of the trucking industry's annual summer safety campaign throughout the Nation.

West Coast Truck Show

The Automotive Council of Los Angeles, Inc., has announced plans for this year's National Truck, Trailer and Equipment Show, to be held June 14-17. The four day show plans to display more than 175 exhibits of rolling stock and equipment, totaling in worth, more than $2½ million. Site for the show will be the Great Western Exhibit Bldg., Los Angeles, Cal. Trade Show Management Co. is handling the details and may be reached at 300 South Los Angeles St., Los Angeles 13, Cal.

1956 Truck Trailer Shipments

	January 1956	December 1955
Vans:		
Insulated and refrigerated	384	388
Steel	82	120
Aluminum	302	268
Furniture	134	154
Steel	112	135
Aluminum	22	19
All other closed-top	1,903	3,398
Steel	995	1,213
Aluminum	908	2,183
Open-top	240	465
Steel	110	247
Aluminum	130	218
Total—Vans	2,751	4,403
Tanks:		
Petroleum	352	472
All other	58	61
Total—Tanks	410	533
Pole, pipe and logging:		
Single Axle	62	57
Tandem Axle	68	59
Total	130	116
Platforms:		
Racks, livestock, stake	47	104
Grain Bodies	39	74
Flats, all types	633	742
Total—Platforms	719	920
Low-bed heavy haulers	227	234
Dump trailers	103	209
All other trailers	293	379
Total—Complete Trailers	4,633	6,794
Chassis	148	246
Total—Trailers and Chassis	4,781	7,040

Source: Industry Division, Bureau of the Census.

WHY
THIS TORCH SPEEDS WELDING 3 ways!

1. LIGHTER
... anodized aluminum handle ... weighs ⅓ less ... is easier to handle. Cuts welder fatigue.

2. STRONGER
... and more dependable! You get service-free production as it withstands abuse and rough handling.

3. COOLER
... the special stainless steel torch head is seven times less heat conductive than brass ... cooler handles keep welders on the job!



4 MODELS A model for every welding and cutting need. Super-Jet, Aero-Jet, Star-Jet and Jet-O-Matic.

MARQUETTE MANUFACTURING COMPANY, INC.
307 E. Hennepin Ave., Dept. 6-44, Minneapolis 14, Minn.

WRITE NOW for illustrated catalog.



New laws enacted by the various states recently include:

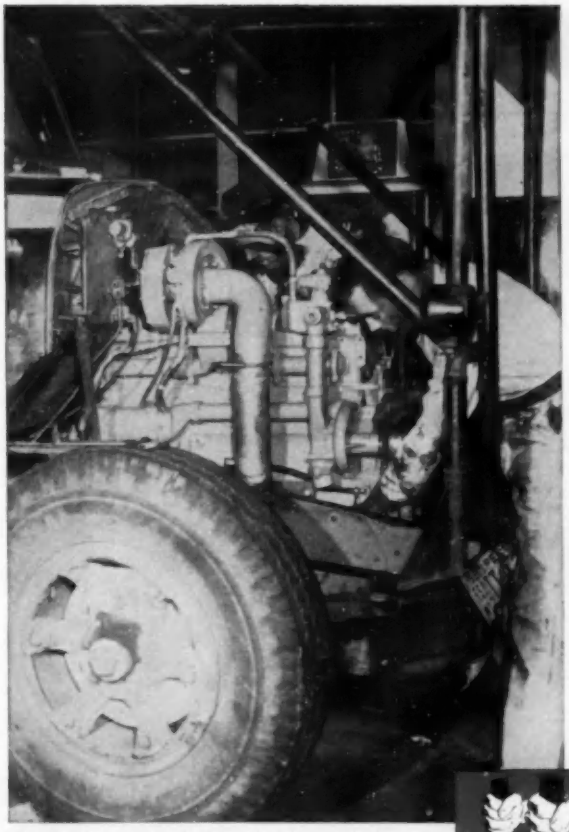
Colorado—Non-resident vehicles are

(TURN TO PAGE 370, PLEASE)

Diesel Without Radiator



Four Wheel Drive Auto Co. features a highway tractor equipped with an air-cooled Deutz diesel engine. Radiator is replaced by an axial flow blower. Hood on the Model No. T-6414D is somewhat wider to accommodate the 170-hp, V-8 diesel engine. Engine also has sealed oil cooler and is lubricated with a gear-type oil pump driven from front-end crankshaft gear. (Deutz's line of diesel engines was described in CCJ, July '54, page 89.)



This Cummins diesel engine being installed in a haulaway tractor has eight oil, fuel and air lines made with *SOCKETLESS* Fittings and Hose.

- tank-to-filter fuel line
- filter-to-pump fuel line
- hand primer-to-suction fuel line
- primer to spray nozzle fuel line
- cooler-to-filter oil line
- filter-to-pan oil line
- dashboard-to-galley oil pressure line
- thermostat-to-shutters radiator line

EIGHT ENGINE LINES MADE AND INSTALLED FAST WITH AEROQUIP *SOCKETLESS*

(PATENT APPLIED FOR)

FITTINGS AND HOSE

One large shop reduces diesel engine installation time 3 hours by standardizing on Aeroquip *SOCKETLESS* Fittings and Hose. Eight engine lines are made and installed by screwing the *SOCKETLESS* Fittings into position and pushing Aeroquip 1525 Hose right on the fitting. The hose is designed to *STAY ON*. No clamps are needed.

Aeroquip 1525 Hose is highly flexible, tough, yet cuts with a pocket knife. *SOCKETLESS* Fittings and Hose Kits assure quick field diesel line replacements for fleet operators.

See your Yellow Page Directory for the name of your nearest Aeroquip distributor or write us for Bulletin 151.

SOCKETLESS is an Aeroquip Trademark.





With *SOCKETLESS* Fittings and Hose, this oil filter line is assembled and installed in one operation.



Highly flexible Aeroquip Hose is installed on this fuel filter line quickly, easily.

Aeroquip

REG. TRADEMARK

AEROQUIP CORPORATION, JACKSON, MICHIGAN

IN CANADA: AEROQUIP (CANADA) LTD., TORONTO 15, ONTARIO

LOCAL REPRESENTATIVES IN PRINCIPAL CITIES IN U.S.A. AND ABROAD • AEROQUIP PRODUCTS ARE FULLY PROTECTED BY PATENTS IN U.S.A. AND ABROAD

TRICKS OF THE TRADE *from* PERMATEX



Stop Oil Filter Leaks. A coating of Form-A-Gasket No. 2 on the top bowl gasket before seating gives you a sure, leaktight seal.



Repair Cracked Batteries. Simply wash off the acid with water and apply Form-A-Gasket No. 1. Makes a strong, permanent repair job.



Radiator and Heater Hose. Brush Form-A-Gasket No. 3 on the hose to permit easy assembly and make a tighter seal. Perfect on all hard-to-get-at heater connections to guard against leaks.

PERMATEX COMPANY, INC.

Brooklyn 35, N.Y. • Kansas City 15, Kans.

More than 50 Chemical Products for Better Automotive Maintenance

FORM-A-GASKET®

Universal Sealing Compounds

LEAKPROOF—PRESSURE-TIGHT

Check tips like these for new ways you can use Form-A-Gasket, best sealant going for leakproof, pressure-tight assemblies. Form-A-Gasket resists gasoline, water, hot or cold oil—many other liquids and gases. And it's specially made to withstand the pressures of high-compression engines.

Every Shop Needs All 3 Types



No. 1. Sets quickly —dries hard

No. 2. Sets slowly —remains pliable

No. 3. Brushable liquid—remains tacky

Hundreds of uses around the house, too

CASE #1

LOCATION: Dominion of Canada

TYPE OF OPERATION: Bus line

PROBLEM: To get efficient engine temperature and better interior coach heating

SOLUTION: BENDIX–WESTINGHOUSE THERMATIC FAN DRIVE

More Heat in Canada

More Miles Per Gallon in Louisiana

CASE #2

LOCATION: State of Louisiana, U. S. A.

TYPE OF OPERATION: Truck line

PROBLEM: To get more miles per gallon of fuel

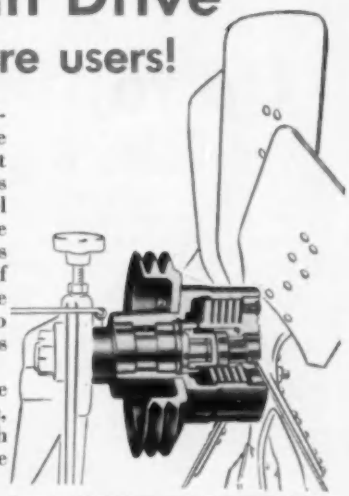
SOLUTION: BENDIX–WESTINGHOUSE THERMATIC FAN DRIVE

Advantages of Thermatic Fan Drive being proved to more and more users!

The cards above represent two recent case histories taken from our files. One concerned a Canadian bus company whose problems were keeping its diesel engines at efficient operating temperatures and obtaining enough heat to keep passengers comfortable during the winter months. The second case involved a trucking company in the southern United States with a far more common problem—to get more usable horsepower and greater fuel economy from its diesel engines. Both companies solved these problems by installing Bendix-Westinghouse air-operated Thermatic Fan Drives!

Here's how. The Thermatic Fan Drive System keeps constant track of engine coolant temperature and either engages the fan when more cooling is required or disengages it when engine coolant temperature falls below the desired operating temperature. Because the fan is disengaged up to 90 per cent of the time, more engine horsepower is actually delivered and greater fuel mileage is realized. In the case of the Louisiana trucking company, this amounted to an average increase of 2/10 M.P.G. By the same principle, the Canadian bus company was able to raise its engine operating temperatures and improve coach heating.

Chances are a Thermatic Fan Drive System could improve your operation, too. Mail the coupon or check with your authorized Bendix-Westinghouse Distributor.



Bendix-Westinghouse

Automotive Air Brake Company
General offices and factory—Elyria, Ohio
Branches—Berkeley, Calif. and Oklahoma City, Okla.

BENDIX-WESTINGHOUSE AIR BRAKES REG. U.S. PAT. OFF.

Bendix-Westinghouse Automotive Air Brake Co.
Dept. A
Elyria, Ohio

Please mail me your free booklet giving complete details of the Thermatic Fan Drive System.

Name _____

Company _____

Street _____

City _____ State _____



This radically new flatbed trailer was designed by Kaiser Aluminum engineers and produced in joint development with Beall Pipe and Tank Corp., Portland, Oregon. Basic design is easy-to-fabricate modified box beam.

Up to 100% more profit per haul

with this ALL-ALUMINUM FLATBED TRAILER

You can double your hauling profits, on high loadings, with this new, all-aluminum, welded flatbed trailer.

Here's why: If you are now operating a steel trailer with a payload of 42,000 lbs., you probably get your fixed operating costs from approximately the first 39,000 lbs. of each haul. The other 3000 lbs. represent the profit part of your load.

The new all-aluminum flatbed—with the same gross vehicle weight—hauls 45,000 lbs. Thus, you get an *extra* 3000 lb. payload—*increase your profit margin by 100%!*

Maintenance costs are low—no painting is necessary because aluminum won't rust.

Kaiser Aluminum 5083 plate alloy was used throughout in the construction of this trailer. 5083 is a remarkable new alloy developed exclusively for *welded structures* requiring *maximum joint strength and efficiency* plus *light weight* and *corrosion resistance.*

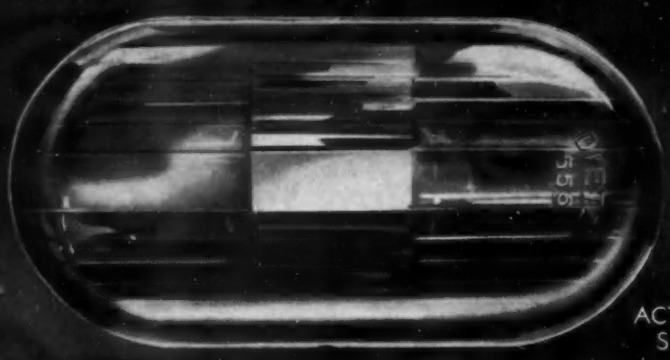
This handsome, high strength trailer was produced by Kaiser Aluminum engineers and the Beall Pipe and Tank Corp.—*working together.*

We are eager to work as an "idea partner" with any manufacturer, large or small, who wants to take full advantage of the most versatile of all metals.

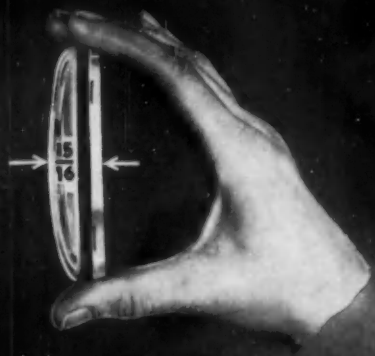
No matter what your trucking problem, our engineers will gladly work with you to develop a design which will help lower your costs . . . increase your profits! *For immediate service,* call the Kaiser Aluminum sales office listed in your telephone directory. Kaiser Aluminum and Chemical Sales, Inc. *General Sales Office,* Palmolive Building, Chicago 11, Illinois; *Executive Office,* Kaiser Building, Oakland 12, California.

Kaiser Aluminum

setting the pace—in growth, quality and service



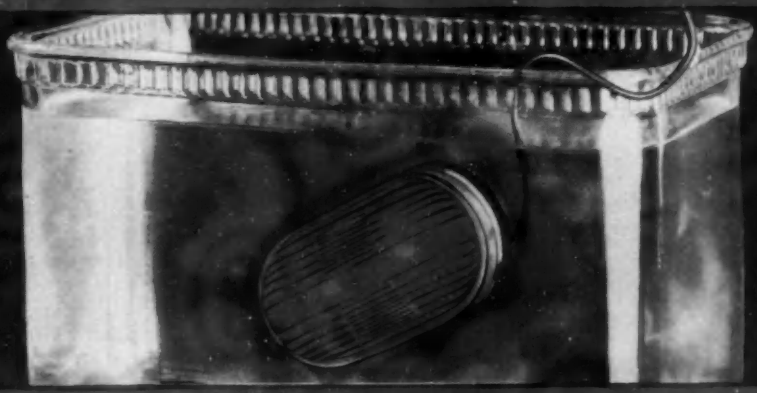
ACTUAL SIZE

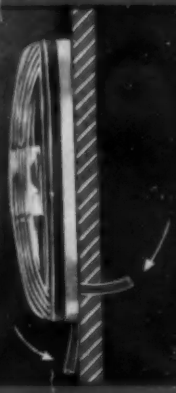


NEW DIETZ MARKERLITE MOUNTS FLUSH. TWO BULBS.



ONE STAYS LIGHTED IF OTHER FAILS. O-RING SEAL...





WATERPROOF, RUSTPROOF. WIRE INSTALLS INSIDE OR



DIETZ

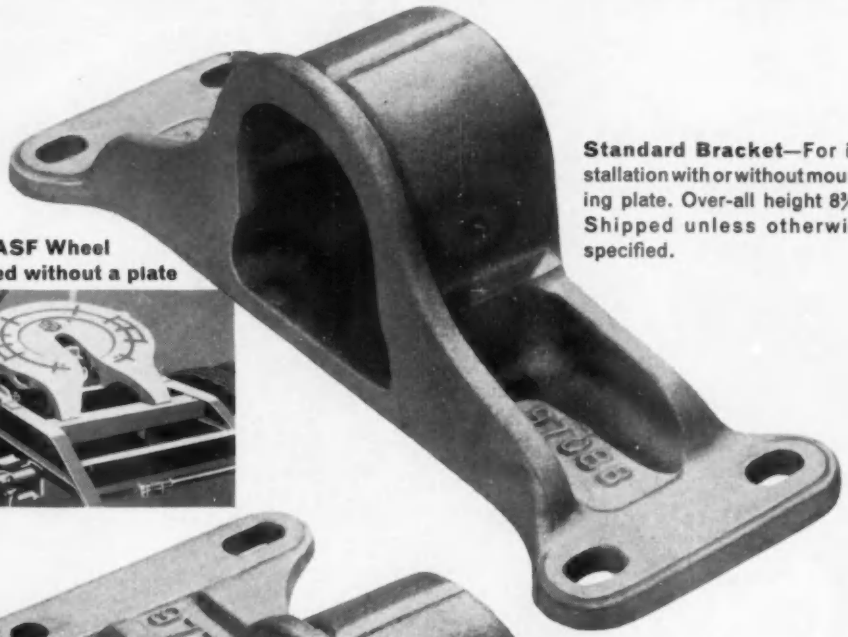
Your Dietz jobber has the facts on the new No. 59 Markerlite. See him. Or write us for a catalog sheet. R. E. Dietz Co., Syracuse, N. Y. Manufacturers of the most complete line of automotive lighting and safety equipment in the world.

OUT. SNAP-ON LENS (NO SCREWS) SAVES TIME, FUSS.



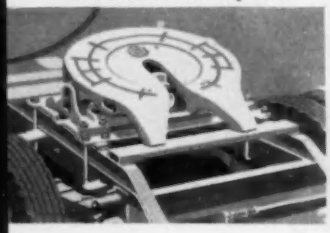
Fleet after fleet told us what they needed . . .

Which one of these 5 ASF brackets



Standard Bracket—For installation with or without mounting plate. Over-all height 8⅜". Shipped unless otherwise specified.

ASF Wheel mounted with a plate



ASF Wheel mounted without a plate



Wide-base Brackets—for angle type mounting without mounting plate. Choice of over-all 8⅜" height or extra low 6¾".

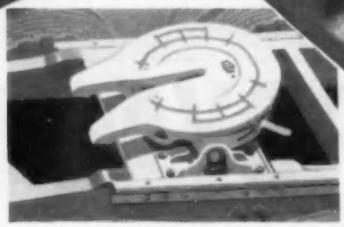


and what they needed, they got!

will solve YOUR mounting problems?



Flush-type Brackets—for mounting flush with outside edges of any standard 34" truck frame. Designed for use with adjustable mountings. Choice of over-all 8⅝" height, or extra low 6¾".



One will —because these designs reflect long field work with truckers on all of the common mounting methods. We wanted to furnish a choice of brackets that would simplify mounting problems and reduce truckers' costs . . . and these are the brackets that truckers themselves helped design.

Today—when you order ASF Safety 5th Wheels —it costs you nothing extra to specify the bracket that meets your requirements:

Flush Type—High or Low
Wide-Base Type—High or Low
Standard—(furnished unless otherwise specified)

Other than differences in shape, these brackets all have the same big trunnion bearing area that eliminates pin problems. And, of course, the ASF Wheels are the same—with the same safety features, same dependable lock, same rugged construction that has rolled up unmatched records of operating economy.

Ask your nearest ASF Distributor for proof—or write American Steel Foundries, Hammond Division, Hohman Ave. and Hoffman St., Hammond, Ind.

Make an investment in safety . . . with

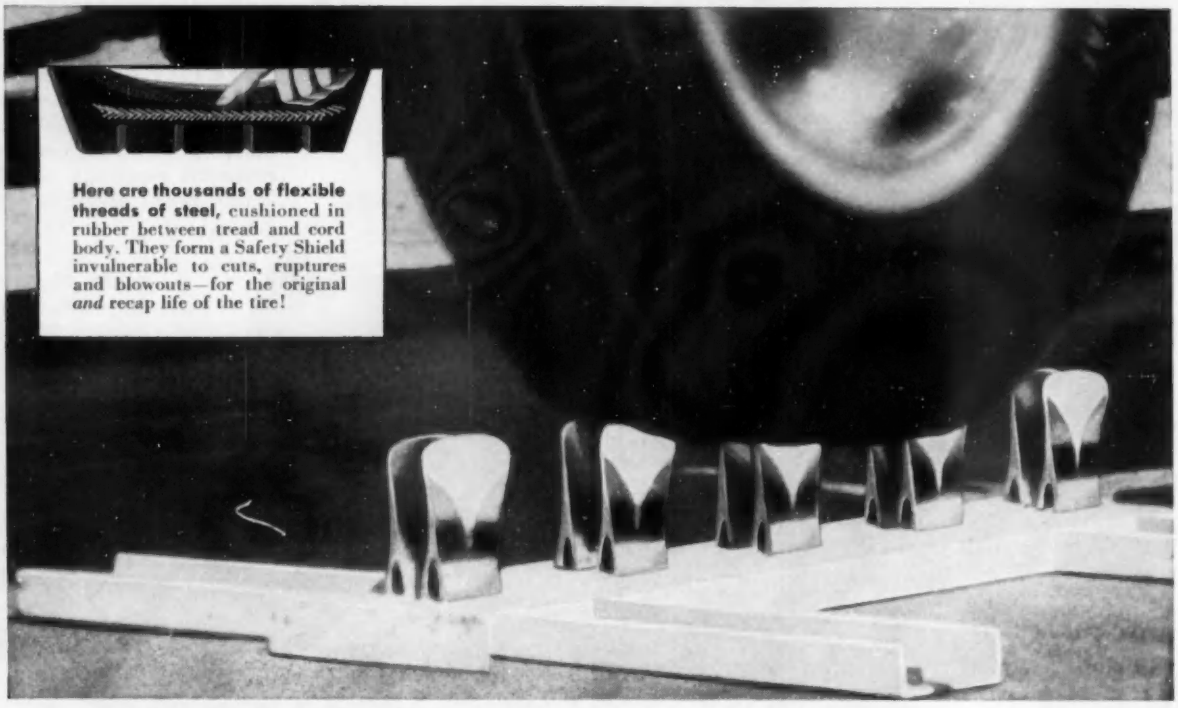
ASF

safety 5th wheels



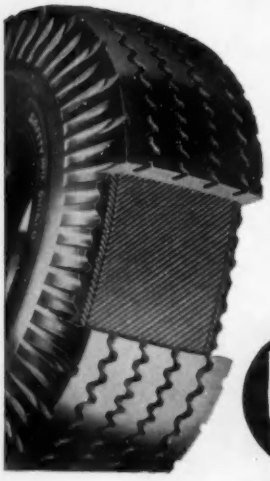
Over axheads...and no blowout

with new exclusive SAFETY STEEL SHIELD



Here are thousands of flexible threads of steel, cushioned in rubber between tread and cord body. They form a Safety Shield invulnerable to cuts, ruptures and blowouts—for the original *and* recap life of the tire!

U.S.ROYAL Truck Tires



Even razor-sharp axblades can't cause *this* tire to fail. It's *invulnerable* to road hazards in the vital tread area!

With the strength of steel, this new U.S. Royal combines full flexibility, light weight and soft ride—without increased inflation. Its carcass, shielded by steel cords, remains undamaged for more safe recaps, making it the most economical of truck tires.

On this safer, tougher tire, your drivers, trucks and loads are protected like never before against sudden tire failure. You enjoy fewer interrupted schedules, more on-time trips, greater customer satisfaction.

You'll find that these new U. S. Royals cost *surprisingly little.* Ask your U. S. Royal Dealer now! And remember you can specify them on any new equipment you buy!

US RUBBER

United States Rubber

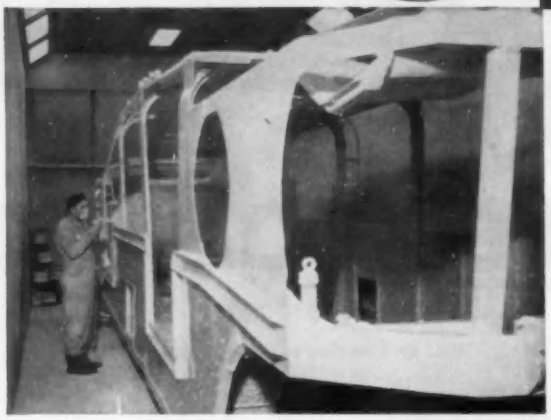
ROCKEFELLER CENTER, NEW YORK 20, N. Y. IN CANADA: DOMINION RUBBER CO., LTD.

After 5 consecutive years, 125-unit fleet reports...

"Nothing like Fleet-X color, for long life, good looks"

... says Carl Copeland, Vice President of Pontiac Auto Transport Co. of Buffalo, New York!





These trucks take a beating hauling new cars and trucks to 13 states from Buffalo.



Sam Tortorice, painter, says, "I've found that 2 coats of Fleet-X flow on without wrinkles, won't fade, resist chipping, cover better—like no other paint I ever used."

Five years ago Carl Copeland wasn't quite satisfied with the paint jobs on their 125 transports used for hauling cars and trucks. Because of fades and chipping, they had to pull trucks off the road to give them new paint jobs. That cost money in repainting and down-time.

The paint shop then tested many brands of enamel including Acme Fleet-X.

Copeland found that painting costs less with Fleet-X. Once out on the road the trucks held their spanking new look and kept it—*even longer than two years*—the time fixed for repainting.

CALL YOUR ACME JOBBER

The ACME WAY Makes PAINTING PAY

ACME

AUTOMOTIVE FINISHES

ACME QUALITY PAINTS, INC.
8250 ST. AUBIN, DETROIT, 11, MICHIGAN

5-RIB CHAMPIONS with NEW POWERFIRE ELECTRODE



FLEET-PROVED TO LAST

Here's what happened in actual truck operation

Nashville, Tennessee—Formerly obtained a maximum of 4,000 miles in Mack truck. Champions with new Powerfire electrode obtained 13,300 miles without removal for 330% of former mileage.

Chicago, Illinois—New Champions installed in a Diamond T-660 ran a total of 17,459 miles with two re-gappings, as opposed to former maximum of 5,000 miles—for 350% of former mileage.

Oak Lawn, Illinois—A Diamond T-720 of this company's fleet formerly delivered not more than 3,000 miles per set of plugs. With new Champions, it operated 12,797 miles—for 420% of former mileage.

Manchester, New Hampshire—White 280 formerly obtained maximum of 8,000 miles with one re-gapping. With new Champions, same unit delivered 14,355 miles—for 180% of former mileage.

St. Louis, Missouri—A Ford C-800 in this operation formerly used two sets of plugs in 16,700 miles. With one set of new Champions, never removed, it operated 19,076 miles—for 228% of former mileage.

Chicago, Illinois—Previous maximum in Diamond T-720 was 4,000 miles. With installation of new Champions, this unit turned in 12,807 miles with one re-gapping—for 320% of former mileage.

Louisville, Kentucky—Trucks of this fleet formerly obtained not more than 4,000 miles. New Champions in Ford F-600 delivered 12,301 miles for over 300% of former mileage.



OVER 3 TIMES AS LONG!



Here's a typical truck-test plug with ordinary electrode after 12,000 miles. It's pitted, almost burned away.



Here's a new Champion with Powerfire electrode at same mileage. It's still in good shape, able to perform efficiently.

Here now—from Champion—is today's latest development in spark plugs . . . new Champions with new *Powerfire electrode!*

Powerfire is a different, better electrode alloy that's designed to take the beating of high temperatures and high rpm in sustained heavy-hauling operation.

Powerfire is the perfect answer for modern high-compression truck engines with their much greater combustion chamber temperatures—and it provides far longer spark plug life and efficient operation in *all* engines, as the on-the-job tests shown here prove.

Next time your trucks are up for a plug change, install a set of 5-rib Champions and see how much longer their new Powerfire electrode lasts—how much maintenance money it saves.

5-RIB

CHAMPION

SPARK PLUGS

CHAMPION SPARK PLUG COMPANY • TOLEDO 1, OHIO

How the Du Pont Anti- save you work,



1. Pick the best!

Photograph above shows why your costly equipment is safest when you winterize with Du Pont Zerone® or Zerex® anti-freeze.

Flask "A" contains a solution of ordinary anti-freeze with an oil inhibitor. Flask "B" contains a solution of "Zerex" with Du Pont's exclusive chemical inhibitor. To each was added the same amount of ground rust. Flasks were shaken and contents poured. Notice how film of rust clings to the inside of Flask "A" just as it would to cooling system. But Flask "B" with "Zerex" is clean—rust particles stayed in suspension – drained out with the solution. Du Pont's chemical inhibitor will never form an oily film of rusty sludge that could clog radiators, causing overheating and serious engine damage.

This is just one of the many advantages you get when you protect your equipment from freeze-ups, rust and corrosion with either "Zerone" or "Zerex" anti-freeze. Pick the Du Pont anti-freeze best suited to your needs and you have taken the first step in the anti-freeze preventive maintenance plan – that will save you work, time and money.



2. Pre-mix your anti-freeze

Both "Zerone" and "Zerex" will mix completely in water, and the rust inhibitor will not separate from the solution while standing. This permits you to pre-mix your anti-freeze solution to any degree of protection desired for use when and where you need it.

Stock your pre-mixed anti-freeze in any convenient place. It will keep indefinitely – always ready to use.

When anti-freeze is pre-mixed, installations can be made rapidly by unskilled help and without the need for individual time-consuming hydrometer checks. What's more, guesswork and the chance of costly overprotection are avoided – and pilferage problems are discouraged.

Take advantage of the total savings possible when you pre-mix with Du Pont "Zerone" or "Zerex" – the quality anti-freezes that can be pre-mixed with water to stay!

Freeze PM Plan can time and money!

PREVENTIVE MAINTENANCE



3. Use the "Zerex" Test Kit

Thousands of dollars' worth of equipment is ruined each year because winter-worn anti-freeze is left in the cooling system to turn acid and cause rust and corrosion.

Now for the first time Du Pont makes it possible for you to tell – right on the job – which "Zerex" anti-freeze solutions are safe to re-use and which are worn out and should be replaced with a fresh "Zerex" solution. In this way, you can reduce cooling system maintenance expense and cut your "Zerex" anti-freeze costs in half!

And remember, *only* "Zerex" anti-freeze can be safely analyzed – on the job – with the exclusive "Zerex" Anti-Freeze Test Kit. This new method for testing reserve alkalinity in "Zerex" anti-freeze is a development of Du Pont research. It helps make possible an anti-freeze preventive maintenance plan that will save you anti-freeze and cut your operating costs.



Your best anti-freeze buy!

Note to maintenance supervisors and anti-freeze buyers: When you consider the value of the equipment you use, the investment your anti-freeze must protect and the expense of needless downtime, an efficient anti-freeze preventive maintenance plan makes good business sense.

The continuing savings made possible with "Zerone" and "Zerex" and an Anti-Freeze PM Plan far outweigh any momentary saving you might gain by using anti-freeze products of questionable performance and low initial cost.

Contact your Du Pont anti-freeze supplier or mail the coupon today – start saving now with the Du Pont Anti-Freeze PM Plan.

DU PONT
REG. U. S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING . . . THROUGH CHEMISTRY

E. I. du Pont de Nemours & Co. (Inc.) CCJ-1
"Zerone"-"Zerex" Section, Nemours 2420
Wilmington, Delaware

Please send more information on the Anti-Freeze PM Plan

*Name*_____

*Address*_____

*City*_____ *State*_____

*Company name*_____ *Title*_____



3 Doors! 1 Lock!!

Above — Beverage Delivery Body built by Penn Body Co., Chicago, Ill. Applied to body are No. 112 Lock and No. 111-B Handle.

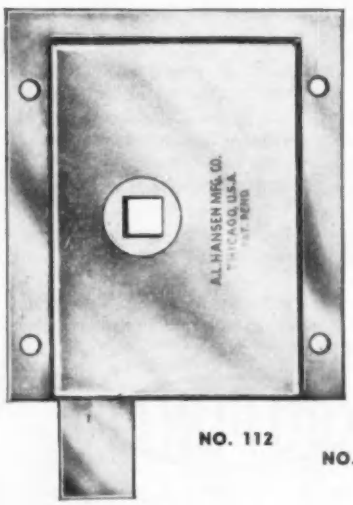
A HANSEN LOCK THAT LOCKS 3 DOORS AS SOLIDLY AS ONE

HERE'S a Lock that locks *three* doors as solidly as one door—the HANSEN Sliding Door Lock. Unlocked, the doors are free to slide to any position, making it easy to load or unload the body. Then by sliding doors closed, it's easy to lock them *all at one time*.

The doors operate on an unique principle. Instead of three rails being used for three doors, *two* rails are used for three doors. Two of the doors slide on an outer rail; one door slides on an inner rail. By pushing the doors to either side, the doors are opened or closed.

The lock is applied to one of three doors, as shown. The stirrup is applied to another door. The locking bolt locks in the stirrup. Thus three doors are locked as solidly as one. Curved striker holds doors in tight, rattle-proof position. Lock comes complete with No. 111-B Heavy-Duty Handle.

This Lock applied to beverage delivery body is shown above. Phantom view shows complete assembly. Body was built by Penn Body Co., Chicago, Ill. Features three sliding doors that operate in two channels, so that all *three* doors lock as *one* lock.



NO. 112



NO. 111-B

No. 112 SLIDING DOOR LOCK. Size, overall: Width, 4½"; length, 5⅜"; ⅜" thick. Flange, ½", with two holes on each side of lock for fastening to door. ½" square steel bushing. 1" striker bolt that extends 1½" beyond edge of lock, when locked. Weight, 2 lbs. Complete with handle, which weighs 1 lb. Total weight, 3 lbs.

No. 111-B HANDLE, for use with No. 112 Sliding Door Lock. Handle fits snugly against door. Provides maximum truck capacity with minimum overall width. For use with padlock supplied by user. Finish: Chromium standard; cadmium, if specified. Weight, 1 lb.

WRITE FOR NEW CATALOG

showing many new products especially adapted for commercial body use.

A. L. HANSEN MFG. CO.

5047 RAVENSWOOD AVE. CHICAGO 40, ILL.

HANSEN

HARDWARE *for* Commercial Bodies



FRED McCURRY, *Manager of Taylor Motor Rental, Inc., Philadelphia, Pa.*, which operates a truck leasing business. The fleet of nearly 100 units is composed of tractors, straight jobs, and medium to heavy equipment.

Truck rental firm proves Gates "T" Belts cost less per mile

Fred McCurry, Manager of Taylor Motor Rental, Inc., says:

"We operate a fleet of nearly 100 units and do all our own maintenance. Whether it's a panel truck or a heavy duty tractor, our vehicles take a beating from severe local and over-the-road service.

"Gates "T" Belts give maximum performance under all conditions—as a matter of fact, *our belt costs have been halved.* Of course, that means a far lower cost per mile for belts. Furthermore, road delays caused by belt failure have been practically eliminated. After comparing costs, we *know* we've got the belt problem licked by using Gates "T" Belts, *exclusively.*"

Make this test:

Call your nearby Gates Jobber and have a Gates Belt Specialist deliver a trial order of belts. Match the service life and cost-per-mile of these belts against any you have ever used. The Gates Rubber Co., Denver, Colorado—
World's Largest Maker of V-Belts.

TPA 93



Look for this

"T"* —

***ON BOTH THE BELT AND THE LABEL—**

It is your assurance of the belt specially engineered for trucks and busses—the belt with a tough, flexible cover and cords of extra high tensile strength.

*Reg. U.S. Pat. Office

The mark of Gates specialized research

GATES TRUCK & BUS V-BELTS


Clearance Lite No. 612
Steel & Lucite Reflector No. PR-3
TRUK-TURN SIGNALS
A complete line of latest improved and approved, Class A, Directional Signals. Optically perfect Lucite lenses. Now available in sparkling, long lasting LUSTER TONE plated finish
Armored Lite No. 535
Aluminum & Lucite Reflector No. AR-3
Lucite Reflector No. PR-4
Clearance Lite No. 610
Streamlined Cab Lite No. 666
Stop & Tail Lite No. 554
Stop Lite No. 570
Lucite Reflector No. PRR-3
This is a representative showing of Anthes LIGHTS and REFLECTORS. With Anthes you can equip all down the line for reliable performance and first grade quality at reasonable cost.
THE FIRST LINE OF SAFETY
Anthes
ANTHES FORCE OILER COMPANY • FORT MADISON, IOWA

YORK-HOOVER

COMMERCIAL TRUCK BODIES



Lightweight construction, rugged durability, and cost-saving efficiency are features of this Railway Express Agency Body built by York-Hoover.



Whether you are a manufacturer, distributor, or retailer, your investment in York-Hoover Commercial Bodies pays off in longer, better, cost-saving service for you.

YORK-HOOVER

PUBLIC UTILITY BODIES



The York-Hoover Model 20IU76 "Proven" Service Body provides fast and economical service in the public utility industry daily because all materials and tools are readily accessible.



The York-Hoover 5000 WD Two-Man Line Body will dig a hole and set the pole in a matter of minutes, all within full view and control of the truck operator.

Contact us for solutions to your truck body problems.

BODY DIVISION
YORK-HOOVER CORPORATION
YORK, PENNSYLVANIA

YORK-HOOVER SPECIALIZES IN CUSTOM BUILT TRUCK BODIES IN STEEL AND ALUMINUM FOR EVERY TRANSPORTATION NEED

WARRENGAS—*The motor fuel that delivers—*

7 Specific Savings for Fleet Owners

1. **FUEL PUMP** eliminated
2. **SPARK PLUG LIFE** greatly increased
3. **ENGINE OVERHAULS** cut substantially
4. **OIL LIFE** increased several times
5. **CARBURETOR** repairs reduced
6. **"DOWN TIME"** for repairs greatly lessened
7. **FUEL COSTS** cut

Only—

POWER MOTOR FUEL SALES *Company offers you—*

7 Skilled Services essential to profitable operations

We guarantee—

1. Dependable supply of 115-octane Warrengas ...backed and delivered by one of the largest producers of LP-Gas in America.
2. A specified saving under what you now pay per gallon for motor fuel.
3. Modern storage and refueling facilities engineered to the specific needs of your fleet.
4. Proper conversion of your fleet equipment, supervised by experienced engineers specializing in this field.
5. Complete personnel training programs conducted by men who know the answers.
6. Assistance in all details—plans, permits, etc. We oversee the whole job.
7. Assistance in arranging financing, if desired, so capital is not tied up.

ONE COMPLETE SERVICE—ONE RESPONSIBILITY

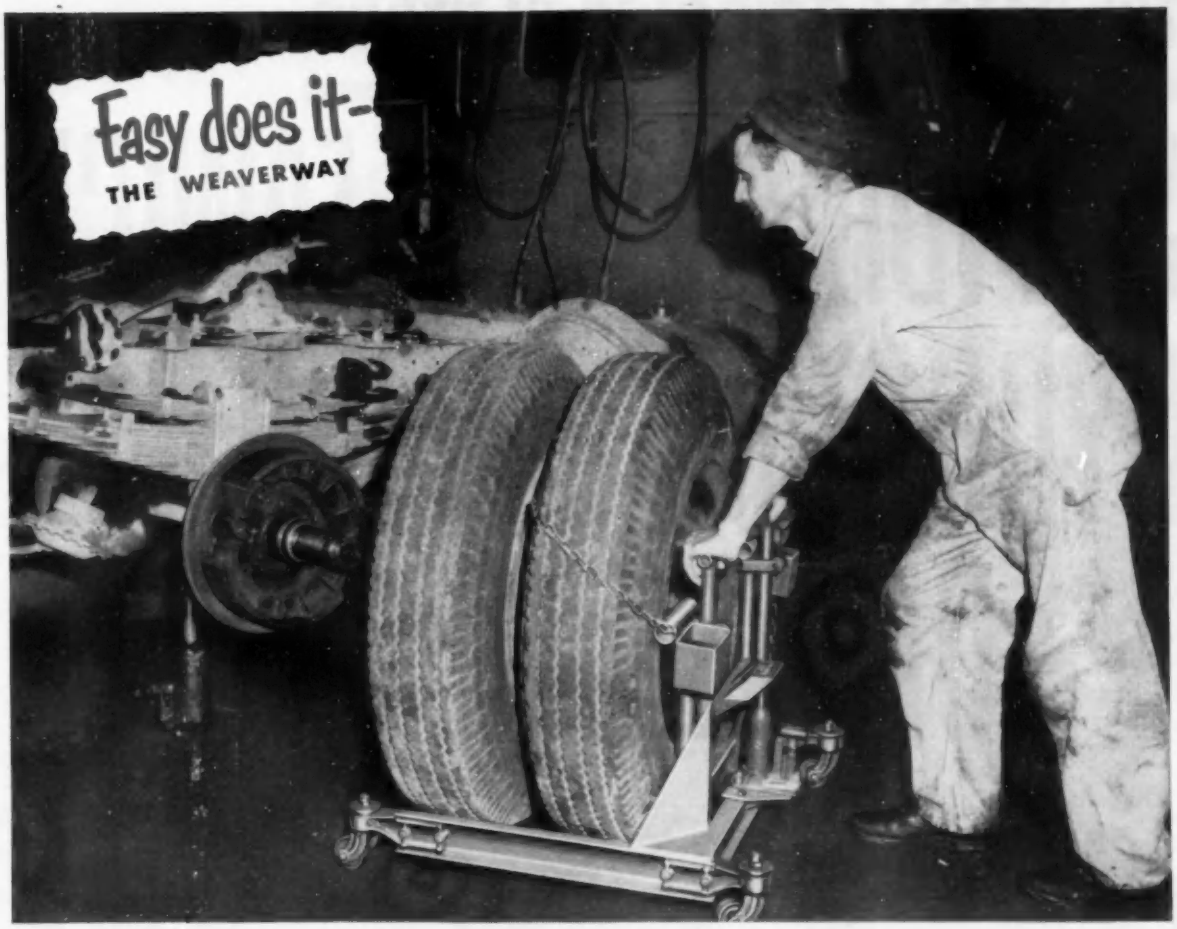
This story is BIG—
too big to tell on one page. Write, wire or phone
CHIEF ENGINEER

POWER MOTOR FUEL SALES *Company*
140 South Dearborn Street,
Chicago 3, Illinois

Distributors of

WARRENGAS
the Concentrated fuel
®

LOUISVILLE • MADISON • OMAHA • ST. LOUIS • HOUSTON • FT. WORTH
JACKSON • WASHINGTON



WEAVER WHEEL DOLLY speeds fleet servicing

Production goes up and costs go down when you use a Weaver Wheel Dolly for tough, tiresome wheel handling jobs. The Model WR-13 shown has 1200 lbs. capacity to enable one man to handle large dual wheels and tires that formerly required the services of three men or more.

The sturdy lifting arms of the Dolly may be lowered for picking the wheel off the floor or may be raised under the jacked up wheel to remove it from the spindle. Built-in hydraulic jack powers all lifting and lowering. Chain holds wheels upright. Lifting arms are of roller type to permit rotation of wheels to line up bolts or keyways.

Find out for yourself how a Weaver Wheel Dolly can speed up brake service, tire changing, wheel bearing work and all other jobs requiring removal of wheel. It will mean less "down time," lower maintenance costs for your fleet shop. Available in 4 models ranging from 1200 to 2500 lbs. lifting capacity. See your Weaver Jobber today or write us for Bulletin CCJ-602.

WEAVER

WEAVER MANUFACTURING CO., SPRINGFIELD, ILL., U.S.A.

SERVICE SHOP EQUIPMENT

Complete line includes: Twin Post Lifts . . Single Post Frame Type Lifts . . Unit Lifts . . Bumper Lift . . Car Washers . . Wheel Alignment Equipment . . Headlight Testers . . Brake Testers . . Wheel Balancing Equipment . . Jacks . . Wheel Dollys . . and Air Compressors.

for safest emergency stops

STANDARDIZE ON FAWICK HYDRO-AIR EMERGENCY BRAKE SYSTEMS*

Confidence of drivers



• What a relief—to know I have an independent brake I can use for a safe stop—and that gives **me** control at all times! I'm for Fawick Hydro-air!

Approval of authorities



• With the increasing number of buses, trucks, and trailers on our highways, we are glad to know that drivers are being provided with the Fawick independent emergency brake system **directly under driver control!**

Relief for owners



• Accidents play hob with profit! We welcome the additional safety, the dependability, and the low cost of this new Fawick Hydro-air **independent** emergency brake system!

Prove it to yourself!

The FAWICK BRAKE DIVISION will be glad to provide all data on the FAWICK Hydro-air Emergency Brake System for your specific equipment. They will also cooperate in the installation and testing of FAWICK brakes on your straight or combination vehicles. Simply call or write the Home Office or nearest distributor.

FAWICK BRAKE DIVISION
FAWICK CORPORATION
CLEVELAND, OHIO

FAWICK HYDRO-AIR* GIVES YOU

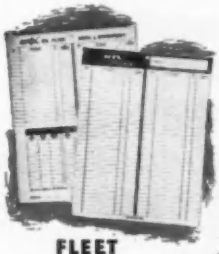
- Emergency brakes on tractors and trailers
- Driver control at all times
- Independent power source
- Tractor emergency protection valve
- Power equal to service brakes
- Controlled emergency braking
- Simple, fast installation
- Low original and maintenance costs

*Patented

FAWICK HYDRO-AIR EMERGENCY BRAKE SYSTEM FOR ALL AIR AND VACUUM-BRAKED VEHICLES



STUCK . . . BY GUM!



FLEET SURVEY

WIX surveys your filtration needs FREE, sets up an Inventory-Control System which solves your cartridge-supply problem . . . automatically!

FLEET MANUAL

Shows the whole story on every payload unit at a glance . . . performance, maintenance, repairs. FREE with your first WIX-PAX order.



WIX-PAX SERVICE

Genuine, top-grade WIX HEVI-DUTY Cartridges, shipped prepaid, direct from factory or nearest WIX Warehouse with billing through your local wholesaler—in shipments of 100 lbs. or more, in full cartons—AT MONEY-SAVING WIX-PAX PRICES!



Your maintenance costs go up fast when your fleet vehicles are pinned down—on the road or in the shop—by sticky valves, scored cylinders and worn bearings. The common cause of these troubles is dirty motor oil full of grit, dirt and gummy sludge picked up under fleet service conditions. The thrifty cure . . . prevention . . . is WIX Engineered Filtration.

WIX provides a *complete* Line of top-quality, HEVI-DUTY Oil Filter Cartridges for *every* filter-equipped engine . . . trucks, buses, passenger cars and stationary engines—gasoline or Diesel—for fuel and lube oil, full-flow and by-pass systems. WIX surveys your filtration needs FREE, sets up a time-saving Inventory-Control System tailor-made for your fleet, and supplies the Cartridges you need at money-saving WIX-PAX prices. Ask for your FREE Filtration Survey and complete details on cost-cutting WIX-PAX Service.

Call your nearest WIX Jobber, or write direct, today!

wix®

OIL FILTERS / CARTRIDGES

WIX CORPORATION • GASTONIA • N. C.

In Canada: Wix Accessories Corp. Ltd., Toronto



Filing your problems doesn't lick 'em

SEE YOUR UNITED MOTORS DISTRIBUTOR TODAY

Stocking and selling parts is just *part* of your United Motors Distributor's job. It's his business to know fleet maintenance, too. He wants to help you—and has the parts to do it. United Motors Distributors carry large stocks of General Motors parts —world famous for finer performance.

So don't file your problems. Instead, call your United Motors Distributor—he's got what it takes to keep your trucks on the road where they belong. Call him soon and cut your truck downtime to a new low.

GM
GENERAL MOTORS
PARTS SALES

UNITED MOTORS SYSTEM

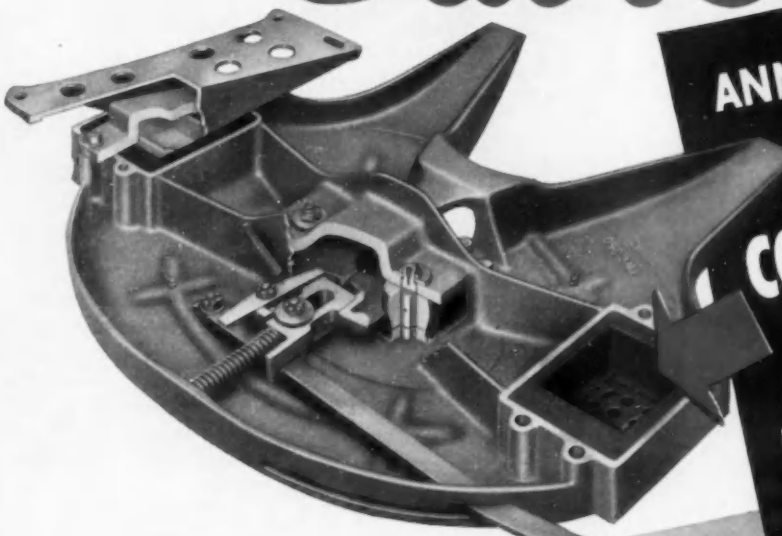
TUNE IN | ON TV . . . . . Spectacular "Wide Wide World" on NBC-TV Network.
ON RADIO . . Lowell Thomas Newscast on CBS Network.
See local listings for time and station.

ALMOST HALF OF AMERICA'S VEHICLES USE THESE GENERAL MOTORS ORIGINAL EQUIPMENT PARTS

Available through independent distributors everywhere

Chassis and engine parts for BUICK, CADILLAC, CHEVROLET, GMC, OLDSMOBILE, PONTIAC • HARRISON radiators • DELCO batteries MORAINE engine bearings • DELCO automotive motors • KLAXON horns • AC gauges, speedometers • MORAINE gasoline filters DELCO shock absorbers • ROCHESTER lighters • NEW DEPARTURE ball bearings • HYATT roller bearings • HARRISON thermostats ROCHESTER carburetors • DELCO-REMY starting, lighting, ignition • DELCO brake parts and fluid • SAGINAW steering • GUIDE lamps PACKARD cable products • INLITE brake linings • GM Hydra-Matic units and parts • DELCO electronic parts

Dayton



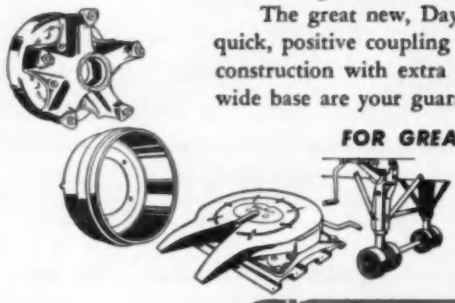
ANNOUNCES THE NEW COMPRESSION BUSHING FIFTH WHEEL



RUBBER COMPRESSION BUSHINGS REPLACE OLD TYPE METAL TO METAL BUSHINGS, ROCKER PINS AND SHOCK INSULATING PADS ...MINIMUM MAINTENANCE

The new rubber compression bushings provide a simplified construction that eliminates the wear of metal bushings ... requires no greasing ... returns the base to loading position and keeps it there under pressure when tractor is free of trailer ... and combines the bushings and shock eliminators into one unit.

The great new, Dayton, semi-automatic Fifth Wheel is one man operated to give quick, positive coupling and absolute protection against accidental unlocking. Rugged construction with extra large, hardened and ground bearing surfaces and a full 36" wide base are your guarantee of long-life trouble free service.



FOR GREATEST ECONOMY IN FLEET OPERATION, SPECIFY DAYTON STEEL WHEELS, BRAKE DRUMS, FIFTH WHEELS AND LANDING GEARS! WRITE FOR COMPLETE INFORMATION.

Dayton Steel products are serviced and distributed by members of the National Wheel & Rim Association.

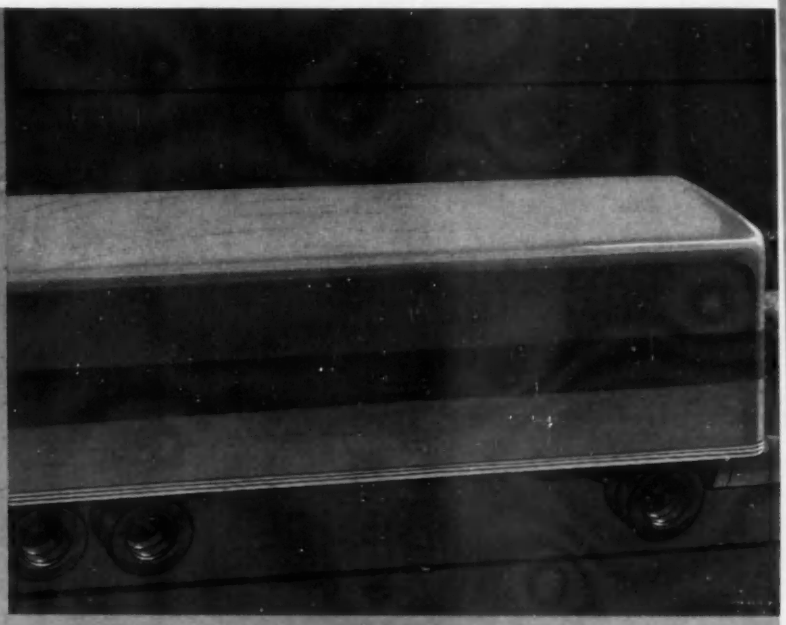
The Dayton Steel Foundry Co.

DAYTON 1, OHIO

SERVING THE MOTOR TRANSPORTATION INDUSTRY FOR **50** YEARS!

LOADED OR LIGHT

MORE LIGHT AIMED RIGHT!



With NEW GUIDE



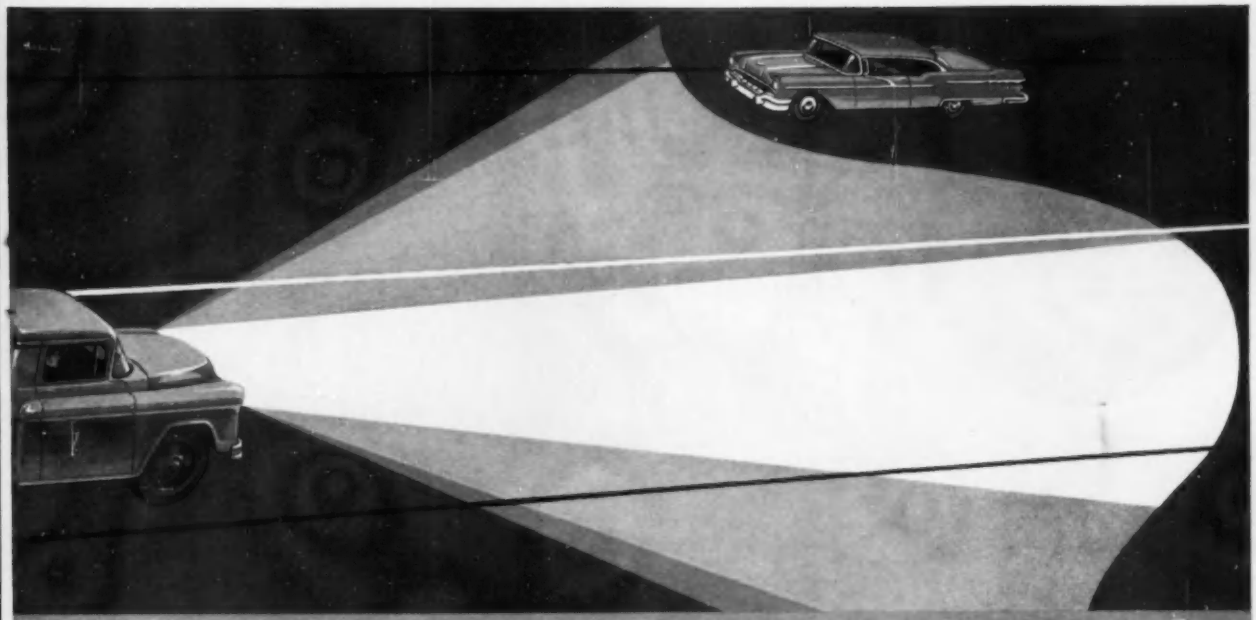
● Now, you can adjust headlamp aim to truck load, get all the down-the-road visibility that the law allows.

The wonderful truth is that new Guide T-3 Headlamps deliver up to 80 feet more "seeing distance" on the lower beam. They place more light on the right—right where you need it.

But, headlamps must be perfectly aimed to provide the better visibility for which they were designed. That's where the T-3 Safety-Aimers come in. With these aimers, T-3 headlamps can be aimed in minutes . . . and perfectly matched to truck load. It's simple . . . it's easy . . . it's quick!

Then, drivers can be sure of all the light they can safely use . . . and also be sure they are within safe limits.

GUIDE T-3 Safety-Aimers for trucks: $18.95 PER PAIR



T-3 *Safety-Aim* HEADLAMPS

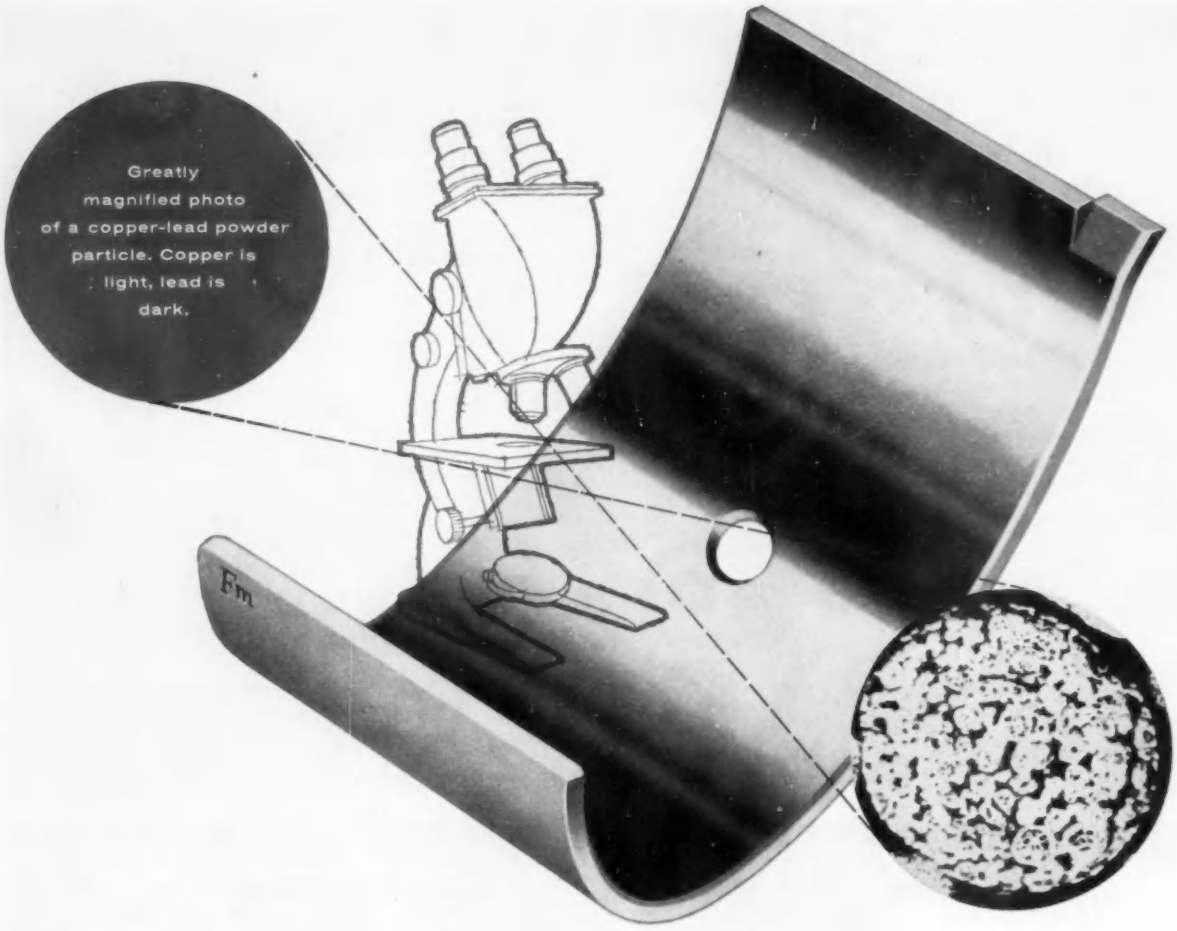


Slip the new Guide T-3 Safety-Aimer over the three "GUIDE POINTS" on the face of the lens, make a few simple screwdriver adjustments, and the job is done!



This new Guide T-3 Safety-Aimer is specially calibrated to adjust headlamps to a changing load. You can adjust both headlamps for vertical aim in three minutes.

CALL YOUR REGULAR AC SUPPLIER
OR YOUR AUTHORIZED *Guide* HEADLAMP SOURCE



Take a look at the structure of the Fm Sintered copper-lead bearing to know why it means more mileage!

You're looking at a grain of Fm powdered copper-lead alloy through a Federal-Mogul laboratory microscope. That's where it all started!

This pure powder . . . Federal-Mogul's patented "mileage-builder" . . . was developed for *heavy-duty* engine bearing mileage. Sintered on steel strip, and formed into bearings, it provides a performance "plus" for fleets.

Each of those tiny powder particles is an alloy, *in controlled proportions*, of copper and lead. This amazing alloy control means uniformity in the lining and road-performance of every Fm bearing.

Quality and performance make Fm bearings first choice! Nation-wide surveys show they are preferred by fleets . . . by 2 to 1. *Ask your Federal-Mogul jobber!* He provides *fast* Federal-Mogul service!

FEDERAL-MOGUL SERVICE

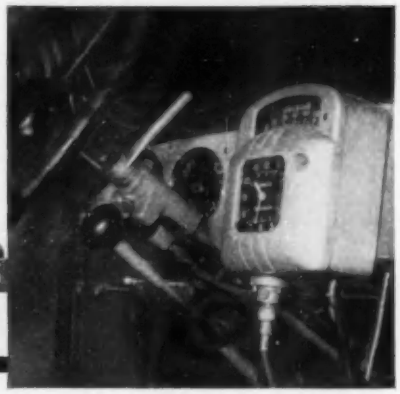
Division of Federal-Mogul-Bower Bearings, Inc.

Fleet BEARING FEDERAL Mogul SERVICE *Mileage*

GET IT FROM YOUR JOBBER

"Tachographs help us recognize our good drivers for their performance, efficiency and safety habits"*







W. T. COWAN, INC.
Fast Motor Freight
EXECUTIVE OFFICES
BAYARD AND CLEVELAND STREETS
BALTIMORE 30, MD.

Wagner Electric Corporation
6400 Plymouth Avenue
St. Louis 14, Missouri

Gentlemen:

Operating a large fleet hauling from New York south to Washington, D. C., requires careful operating planning on our part. In fact we, who are connected with W. T. Cowan, Inc., take pride in the fine reputation we have gained by providing fast, safe, on-schedule delivery of customers' cargo and equipment

Tachographs have played an important role in our fleet operation. They are installed as standard equipment on 115 of our highway tractors and have been very dependable while in service. They have aided us in establishing average running time used in setting schedules and also determining accurate mileage. And because speed is controlled and carefully checked, over-all maintenance has been reduced and safety greatly increased.

We like Tachographs because they help us recognize our good drivers for their performance, efficiency and safety habits. We definitely plan on continuing to rely on Tachographs by installing them in every new over-the-road vehicle we operate.

Sincerely yours,

R. W. Furtick

R. W. Furtick
Vice President & General Manager

*** R. W. FURTICK, Vice-President and General Manager W. T. Cowan, Inc., Baltimore, Maryland**

In addition to encouraging good driving habits, you can establish more profitable schedules and gain other advantages by relying on Tachographs and their accurate analysis of complete trip information. You will soon find that Tachographs are essential to safe, economical over-the-road operation. They help you maintain on-time schedules and, because they improve driving habits, you gain extra maintenance savings as reflected in tires, fuel and mileage.

Tachographs are easily mounted on the dash. They connect directly to the speedometer cable. The wax-coated chart, inserted inside the durable aluminum Tachograph case, provides complete information—accurately and permanently recorded.

It tells all:

- When engine started
- How long it idled
- When vehicle was in motion
- How fast it traveled
- When it stopped—and for how long

Illuminated dials on the Tachograph show time of day, m.p.h. and total mileage. Tachograph models which indicate and record r.p.m. are also available. A red light warns the driver when a pre-determined speed is exceeded.

Mail the coupon below for your free copy of Bulletin SU-3—it gives a complete "inside story" on Tachographs. No obligation, of course.

DISTRIBUTED BY
Wagner
Electric Corporation

S56-3

Wagner Electric Corporation
6476 PLYMOUTH AVE., ST. LOUIS 14, MO.
Please send a copy of Bulletin SU-3.

Name and Position_____
Company_____
Address_____
City_____ State_____
We operate_____ Vehicles
(NUMBER)

LOCKHEED HYDRAULIC BRAKE PARTS and FLUID • CoMoX BRAKE LINING • NoRoL • AIR HORNS • AIR BRAKES • TACHOGRAPHS • ELECTRIC MOTORS • TRANSFORMERS • INDUSTRIAL CRANE BRIDGE BRAKES



A "twist of the wrist" keeps

Engine overheating—low gasoline mileage—sluggish engine performance—all three cause increased trouble and expenses—and all three are symptoms of dirty, clogged cooling systems.

Even the best cooling systems can give you trouble—unless they're carefully cared for!

The answer? It starts with a "twist of the wrist". Just drain, clean and flush the cooling system of every truck in your fleet . . . then add a good rust inhibitor to protect the system and keep it clean.

You'll get better gas mileage—smoother engine performance—and less down-time for radiator repairs.



the fleet on the move



Now's the time to make sure you get trouble-free summer driving for your fleet:

1. Drain, clean and flush all cooling systems.
2. Add a good rust inhibitor to every clean radiator.

DOW

THE DOW CHEMICAL COMPANY, MIDLAND, MICHIGAN

US AXLE SHAFTS



Every day, everywhere, U. S. Axle Shafts are *improving* fleet performance records—out-performing and out-lasting all others. Their *proved dependability* helps loads travel more safely, more surely—with lowered maintenance costs.

Improve your fleet performance records—order replacements from your U. S. AXLE JOBBER

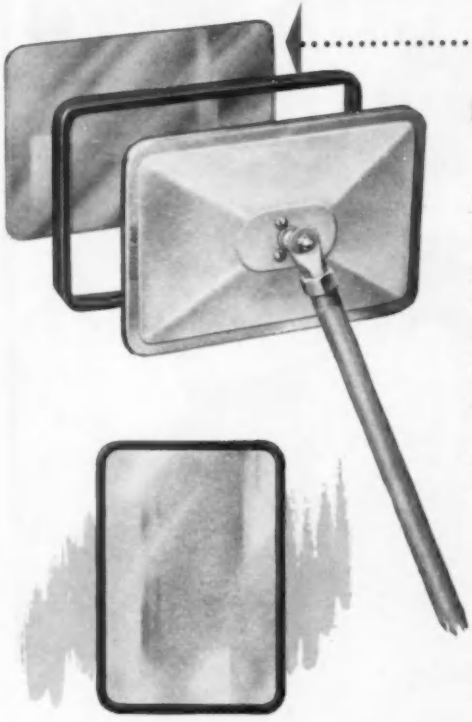
THE US AXLE COMPANY, INC.

Since 1920 • POTTSTOWN, PENNSYLVANIA

"THE WORLD TURNS ON U. S. AXLES"

US AXLES

NEW! COPPER COATING



PREVENTS CLOUDING • FLAKING • PEELING
—and is impervious to condensation!

Here's another vast improvement brought to you by Griffin. *Now every Griffin mirror lens has copper-coating on the back!*

This electroplating process prevents clouding, flaking, peeling, is impervious to condensation! It lengthens mirror life by years, cuts replacement costs to the barest minimum.

And all Griffin rectangular mirrors now feature a heavy rubber frame, too! It prevents moisture from getting behind the lens, absorbs hard blows and sideswipes, is easily removable for replacement of lens.

Like all Griffin products, these mirrors are built to take plenty of abuse, out-perform, out-last any on the market. That's why it pays to standardize on Griffin—the complete fleet line.

50 sq. inch lens complies with recent state laws

● **"JUMBO" No. 480**—Rubber frame seals out moisture. Swivel mounting with 3 threaded tension screws for rigid adjustment. Clear or non-glare lens available. Overall size, 6⅜″ x 9¼″.



● **No. 400**—Rubber frame seals out moisture. One-piece heavy metal body, metallic aluminum finish. Swivel mounting with 3 threaded tension screws provides rigid adjustment. Overall size, 3⅝″ x 7¾″.



● **No. 460**—Mirror breakage troubles are over! Special neoprene channel ring insulates lens against breakage from hard blows. Rubber gasket seals out water. 1-piece aluminum finish metal body. 3 tension screw swivel mounting. Clear or non-glare lens. 5½″ mirror head.

A COMPLETE LINE OF GRIFFIN BRACKET ASSEMBLIES FOR COWL, PANEL, FENDER AND HINGE MOUNTINGS

Come in varying lengths for all type mountings. Outside tubing on extension brackets is ¾″ OD, inside tubing is ⅝″ OD. Brackets treated to resist rust, and aluminum finish is baked on for further protection. Fibre friction washers assure rigid adjustments.

- **No. 904**—Combination bracket for mounting on panel, or hinge from 2″ to 2½″ wide. Extension type, from 15″ to 27″.
- **No. 923**—Panel mounting bracket. Extension type, from 15″ to 27″.
- **No. 933**—Cowl mounting bracket. Extension type, from 10″ to 15″.
- **No. 922-C**—Fender mounting. Extension type, from 12″ to 17″. All parts chromium plated.

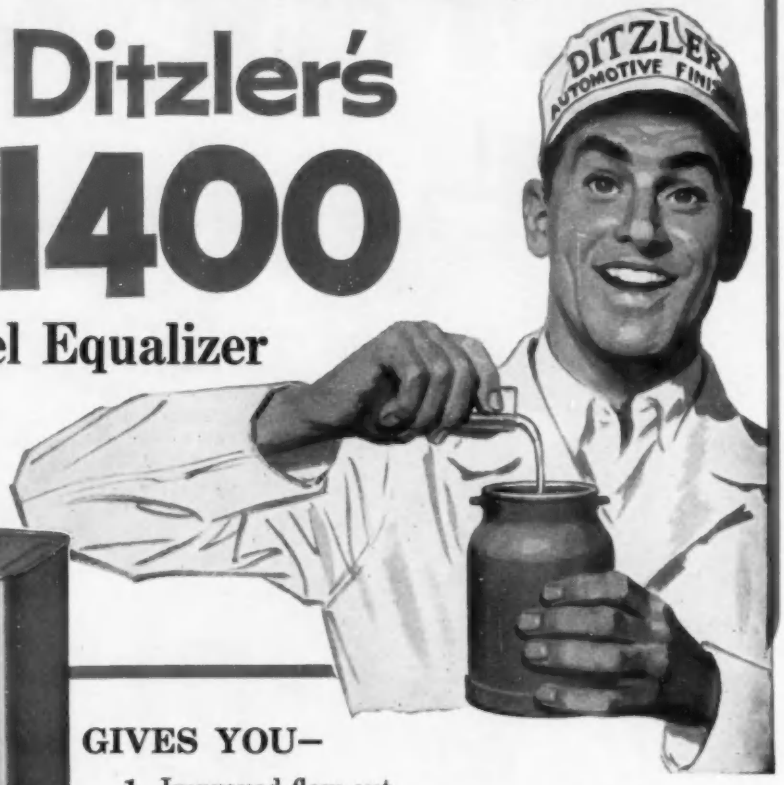
THE GRIFFIN LAMP COMPANY
HAMILTON, OHIO • SHELBY, MISS.
Warehouses:
Boston, Pittsburgh, Los Angeles,
San Francisco, Seattle

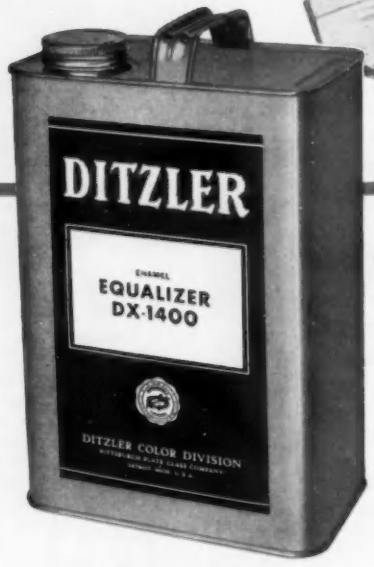
GRIFFIN
AUTOMOTIVE SAFETY LIGHTING

For smoother, better-looking work

...use Ditzler's DX-1400

Enamel Equalizer





GIVES YOU—

1. Improved flow-out
2. Better control on matching metallics
3. Economy and flexibility in air-dry or baking applications
4. Increased build of enamel film
5. Excellent depth and gloss
6. Harder finish

FOR AIR DRY—

● Resists wrinkling when enamel is loaded. Added protection during hot humid weather or premature exposure to hot sun. Helps eliminate sags and runs.

FOR BAKING—

● Concentrated baking converter. Economical (only 1 oz. per quart). No special baking type reducers needed.

FOR HOT SPRAY—

● Provides added safety factor. Equalizes stresses set up when hot enamel hits cold surface. Allows heavy film to flow out for top appearance value.

FOR ANY APPLICATION—

● DX-1400 Ditzler Enamel Equalizer will make enamel jobs easier—give your customer more satisfaction when the job is completed.

DITZLER COLOR DIVISION, Pittsburgh Plate Glass Company, 8000 West Chicago Avenue, Detroit 4, Michigan

DITZLER

PAINTS • GLASS • CHEMICALS • BRUSHES • PLASTICS • FIBER GLASS

PITTSBURGH PLATE GLASS COMPANY

IN CANADA: CANADIAN PITTSBURGH INDUSTRIES LIMITED

THOUSANDS OF TANDEMS

BUILT BY HUTCHENS ARE NOW IN DAILY USE

WITHOUT A SINGLE COMPLAINT OF THE EQUALIZER FREEZING IN SERVICE!



Inside the equalizer pin is an oil reservoir that holds 6/10 of a pint of oil — full 6-months' supply. Remove bolt (A) to fill reservoir. Rubber "O" ring (B) fits in a machined groove around the equalizer pin — holds oil in, seals dirt out. Oil passes from reservoir thru hole (C). Equalizer pin is secured by two Hex Head Cap Screws and Lock Washer (D). Just fill it — forget it!

a bronze bearing operating in oil

Engineers in all fields have proven, over many years of actual operation, that maximum efficiency and minimum wear results with a bearing operating in oil. The Hutchens Tandem bronze bearing, in oil, maintains absolute stability and road-worthiness by permitting the equalizer only straight forward and backward motion.

STOP PAYING THE PREMIUM FOR HIGH FREIGHT CLAIMS

With 14 leaves designed for progressive spring action, the Hutchens Tandem moves the bearing point constantly closer to the center as the load is applied. Absolute uniform spring deflection is assured. Whether you have 2,000 or 18,000 pounds on your unit, you know that the same vibration-free ride is assured. Lesser spring leaves tend to encourage "rough-riding" causing vibration in the trailer construction when empty or partially loaded. Let Hutchens show you how you can reduce maintenance costs and freight claims with a PERFECTION ENGINEERED Hutchens Tandem.

HUTCHENS SERVICE AND PARTS AVAILABLE IN ALL 48 STATES, CANADA AND MEXICO AND FROM THESE

FACTORY WAREHOUSES

THE NESS COMPANY
365 W. Cottage Place
York, Pennsylvania

CINCINNATI TRANSFER CO.
1440 W. 8th St.
Cincinnati 3, Ohio

E. J. KETCHUM
2552 E. Gage Avenue
Huntington Park, Calif.

EXCLUSIVE MANUFACTURERS OF TRUCK-TRAILER EQUIPMENT

Hutchens & Son Metal Products, Inc.

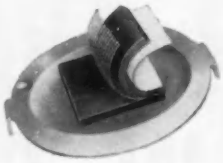
SPRINGFIELD, MISSOURI

HOW MOST TRUCK OWNERS WILL SERVICE TUBELESS TIRES

With the rapidly growing use of tubeless tires, methods of service proved best by thorough test and experience have now been adopted as standard for recommended use by all truck operators and service stations.

THE QUICK, SAFETY-PROVEN WAY

1. Buff puncture area with No. 6633 Wire Buffer.
2. Fill puncture hole with Dillectric Filler Rubber using No. 5213-T Threading Tool.
3. Apply No. 6626-25 Dillectric Nylon Reinforced Patch using No. 6691 "U" Clamp with wires attached to Dillectric No. 6685 Clamp.



NYLON REINFORCED PATCH

Blowout-proof. The Dillectric patch is reinforced with over 1500 inches of nylon filament woven into a square mesh fabric. Provides strength vital for tubeless tire repair safety. Uncured square patch vulcanizes into feather-edge round shape.

ORDER No. 6691-K "U" CLAMP OUTFIT

Includes: No 6691 "U" Clamp with Secondary and Ground Wire, No. 6633 Buffer Kit, No. 5213-T Threading Tool, Can of 25 No. 6626-25 Dillectric Nylon Reinforced Tubeless Tire Speed Patches.
If you do not have a No. 6685 Clamp, order also.

No. 6685 Clamp



DILLECTRIC
Electrically Vulcanized Repairs
FOR PUNCTURES IN ALL TIRES UP TO 14:00



No. 6691 "U" Clamp

Automatically timed for perfect vulcanization of a permanent Deep-Cure repair that completely seals and protects tire cords from moisture, deterioration and leakage.

DILL VALVES
STANDARD OF THE TIRE INDUSTRY

No. VS-876 SERIES
2-PIECE VALVES WITH "O" RING SEAL
in 6 lengths from 3" to 5⅜"

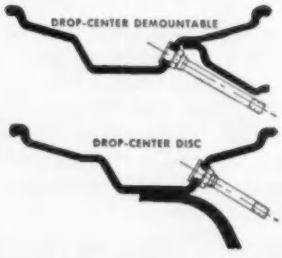
For use on Drop-Center and Flat-Base sealed type rims with valve hole in bottom of rim. Includes Spud Base, Valve Extension and complete parts.



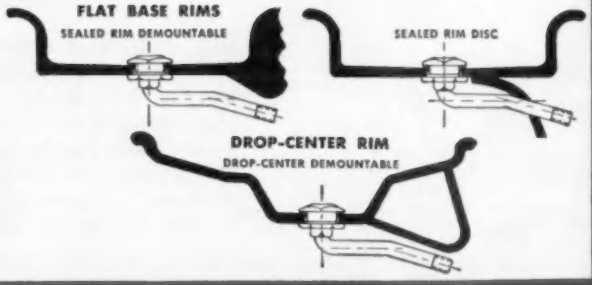


No. VS-900 SERIES
in 6 lengths from 2" to 4⅜"

Metal Clamp-in type valves designed for use on tubeless Truck tire Drop-Center rims where valve hole is located at the side of the rim. Equipped complete with parts.







*Order from your wholesaler, tire or oil company, or write us for complete catalog and service data.

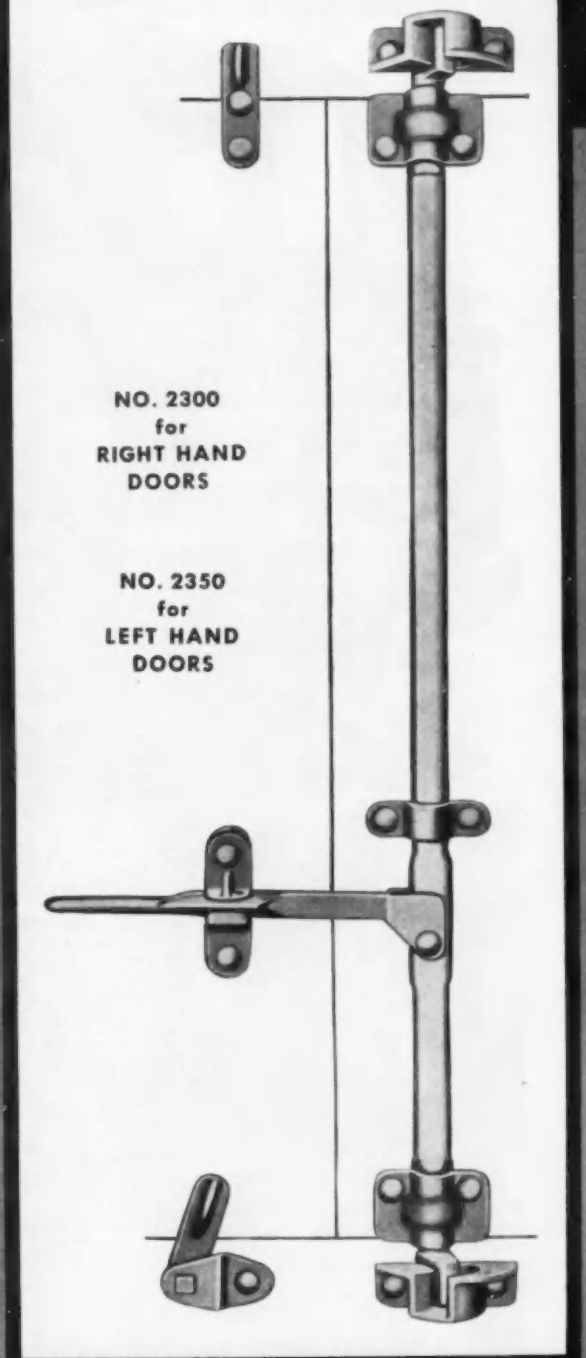
THE **DILL** MANUFACTURING COMPANY
700 E. 82nd STREET
CLEVELAND 3, OHIO

MINER TUBULAR BAR TYPE *Door Fasteners*

DROP-FORGED!

FOR TRUCK AND TRAILER BODIES

The Miner Truck Door Fastener, No. 2300, is applicable to all sizes of rear and side doors, either single or double, and is particularly desirable for refrigerator bodies. The highly dependable features of the Miner Bar Type Fastener which have always been widely accepted by the truck builders and operators have been retained in this new fastener. Refinements in the component parts have been accomplished by the drop-forging process, which permits the use of special carbon steels of unusual hardness in texture and vastly stronger and denser than the malleable iron product, thereby guaranteeing longer endurance in a service that demands reliability of operation. The vertical locking bar of scientifically designed oval section has the rigidity and torsional strength necessary to withstand the rugged operating conditions which exist at loading platforms.



NO. 2300
for
RIGHT HAND
DOORS

NO. 2350
for
LEFT HAND
DOORS

W. H. MINER, INC.
CHICAGO

NEW! Diamond T

Turbo-Supercharged!





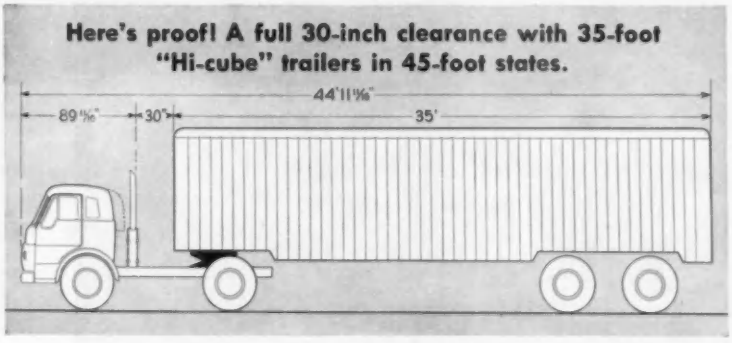
Unique "Tilt-Cab" Design

With cab in tilted position, the entire power plant area is wide open for any kind of adjustment or repair. Controls are not disturbed when cab is tilted. Counterbalanced cab lifts easily, by hand.

"Would not trade my new Diamond T for a government pension!"

That's what one North Carolina driver says about his new 723CJT. It hauls in excess of 30,000 lbs. Performance is excellent and fuel mileage is averaging 7¼ miles per gallon.

Here's proof! A full 30-inch clearance with 35-foot "Hi-cube" trailers in 45-foot states.



Tilt-Cab Diesel!

175 Horsepower! Newest advance in close-coupled design!
A space-saver! Up to a ton of extra capacity!
Easy on fuel! Easy to service!



HERE is welcome news for highway freight haulers, the amazing new Diamond T that is proving to be the most versatile and most economical tractor ever developed for trailer payloads in the range of 18 to 20 tons.

This newest Diamond T is the Tilt-Cab Turbo-supercharged Diesel-powered Model 723CJT. With its Diesel power, this Diamond T makes immediate fuel savings of 1½ to 3 cents a mile—often as much as $2000 a year per truck.

What is more, the Tilt-Cab design allows a full ton of added payload under common legal restrictions. Rear chassis weight is reduced by 1000 pounds and another 1000 pounds of payload is carried by the front axle. The short-coupled tractor takes 35 foot "Hi-cube" trailers in 45 ft. states with ample freedom of king-pin positioning.

Ask for the evidence of the outstanding superiorities of the new Diamond T Tilt-Cab Diesel. Freight operators who are using this unit report that it's tops in the field in performance, economy and reliability.

All Diamond T's are "custom-built" to match the job!

Diamond T builds a complete line of heavy-duty trucks and tractors from 1½ tons to giant diesel six-wheelers. Conventional models and Diamond T Tilt-Cab models. Have your Diamond T custom-built to your *exact* requirements. See your dealer or write *Diamond T Motor Car Co., Chicago 23, Illinois.*

DIAMOND



"Can honestly say that this is finest truck we've ever driven!"

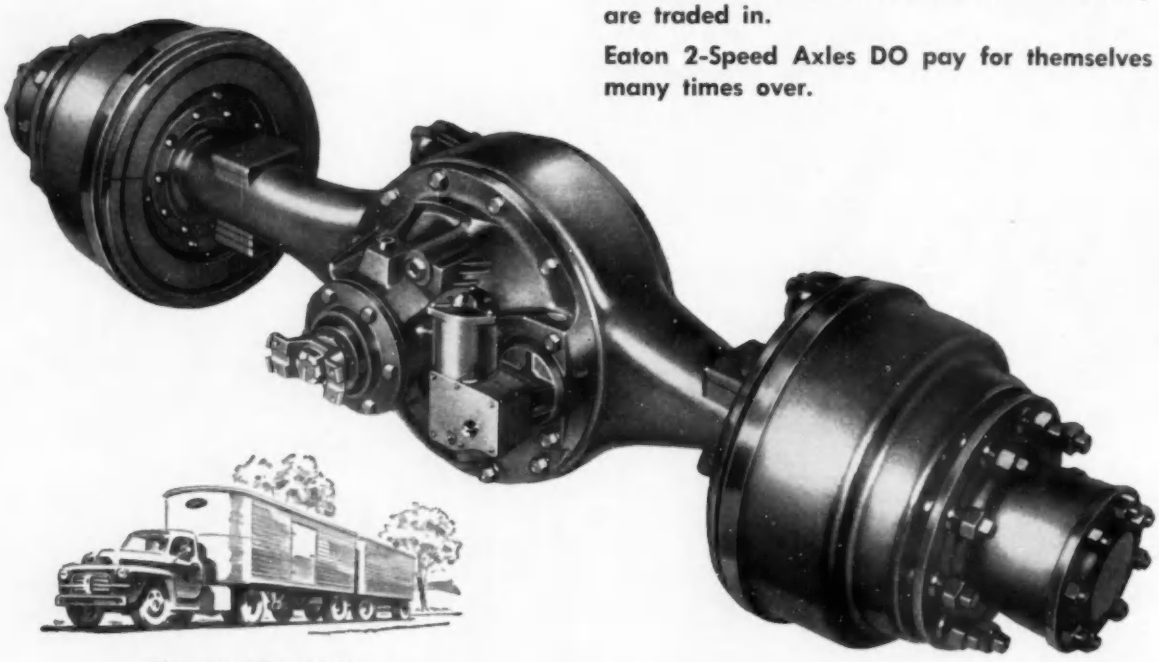
Listen to Roy and John Jackson, operators of this Diamond T. "We have loads of between 30,000 and 35,000 lbs. from Chicago to points east, and our fuel mileage has been 7 miles per gallon at top speeds. Ease of handling and power on the hills both exceptional. Visibility of new-type cab affords safer driving. To sum it all up—for my money, I will take another one!"

Eaton 2-Speed Axles give Truckers these Important Benefits—

- **POWER WHEN NEEDED**
- **SPEED WHEN WANTED**
- **LOWER OPERATING COSTS**
- **LOWER MAINTENANCE COST**
- **LONGER TRUCK LIFE**
- **HIGHER TRADE-IN VALUE**

With Eaton 2-Speed Axles drivers select the gear ratio best suited to road, load, and traffic conditions—the ratio for maximum economy, safety, and maneuverability. Quicker trips with full loads mean more payload miles at lower cost per mile. Engines run in the most efficient and economical speed range, reducing stress and wear on engines and all power transmitting parts. Trucks stay on the job, out of the repair shop. Thousands of miles are added to vehicle life; trucks are worth more when they are traded in.

Eaton 2-Speed Axles DO pay for themselves many times over.



More than Two Million
Eaton Axles in Trucks Today!

For complete information, see your truck dealer.

EATON

AXLE DIVISION
MANUFACTURING COMPANY
CLEVELAND, OHIO

PRODUCTS: Sodium Cooled, Poppet, and Free Valves • Tappets • Hydraulic Valve Lifters • Valve Seat Inserts • Jet Engine Parts • Rotor Pumps • Motor Truck Axles • Permanent Mold Gray Iron Castings • Heater Defroster Units • Snap Rings Springtites • Spring Washers • Cold Drawn Steel • Stampings • Leaf and Coil Springs • Dynamatic Drives, Brakes, Dynamometers

If you're particular about oil mileage...



be particular about the oil you use...



USE WOLF'S HEAD

You can rely on WOLF'S HEAD Oil to safeguard your engines, to prevent unnecessary wear and protect against damage by heat and contaminants. Rich, tough, long-lasting WOLF'S HEAD, the super refinement of Pennsylvania crude oil... nature's finest crude... won't thin out or burn away. It cleans as it lubricates and provides every vehicle with "extra" all around protection.

WOLF'S HEAD Heavy Duty Oil provides a strong, tough film; superior detergency and maximum resistance to oxidation for vehicles in severe heavy duty service. Protects against sludge, rust and corrosion. Reduces oil consumption to a minimum.

Ask about the free WOLF'S HEAD Laboratory Control Plan. It helps fleet operators prolong the life of their vehicles and reduce down time.

100% PURE PENNSYLVANIA
★ Longer Lasting
★ Superior Protection
★ Keeps Engines Clean
★ Keeps Power High

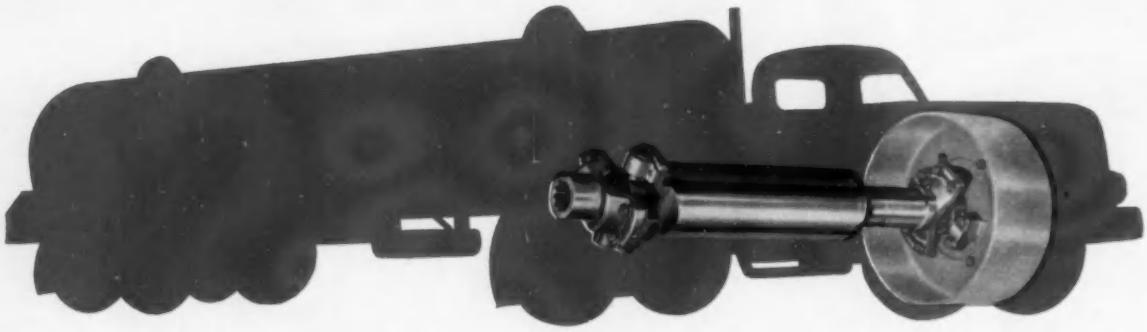
WOLF'S HEAD MOTOR OIL AND LUBES

100% Pure Pennsylvania—Scientifically Fortified — Member, Penna. Grade Crude Oil Association

Free!
"RULES OF THE ROAD" Folder contains complete driving information, traffic rules, speed laws for all states. Give them to your drivers.
WOLF'S HEAD OIL REFINING CO., Inc.
OIL CITY, PA.
New York Office: Glendale 27, N. Y.



RUGGED



Manufacturers of the big diesel transports, that must stand up under hour-after-hour of gruelling service, have learned to rely upon MECHANICS Roller Bearing UNIVERSAL JOINTS to deliver hundreds of thousands of miles of trouble-free service. Because MECHANICS JOINTS drive through KEYS—instead of bolts—they stand up under punishment that shears off other types of fasteners. They are designed with less parts and connections for easy assembly and servicing—smooth running balance—maximum strength with less weight—and long, trouble-free, safe operation. Rugged stamina is just one of the advantages you get when you specify MECHANICS Roller Bearing UNIVERSAL JOINTS. Let MECHANICS engineers help you design this and other competitive sales features into your product's transmission train.

MECHANICS UNIVERSAL JOINT DIVISION
Borg-Warner • 2034 Harrison Ave., Rockford, Ill.
Export Sales: Borg-Warner International
79 E. Adams, Chicago 3, Illinois

MECHANICS
Roller Bearing BW
UNIVERSAL JOINTS

For Cars • Trucks • Tractors • Farm Implements • Road Machinery • Aircraft • Tanks • Busses and Industrial Equipment



George Goetz, Clifton's Vice President, is shown at right with John Grimm, Cooper's Truck Tire Sales Manager, as they discuss the Traction-Tread's Gear-Tooth Lugs and special Highway Running Rib.

Cooper Traction-Treads cut costs 30%, cut "down-time" over 50%!

Clifton Concrete & Supply's 50 ready-mix concrete trucks haul 12-ton capacity loads to off-the-road points around Cleveland, Ohio. They need tires that can carry these killer loads smoothly, safely over the road at higher average speeds and also deliver sure-footed traction on soft, rocky, rutted terrain. Combination service like this could send tire costs sky-high.

Yet, George Goetz, Clifton's Vice President and General Manager, reports a 30% cut in tire costs since changing to Cooper Traction-Treads with "Hi-T" Tension Set Nylon Cord.

America's Most Versatile Tire

Typical savings like this are reported by dump truck and ready-mix concrete haulers, road builders, school bus and delivery truck operators—even long distance highway haulers who use Cooper Traction-Treads on the drive wheels of their tractor units. They tell how Cooper Traction-Treads in both "Hi-T" Nylon and Rayon types are setting new combination on-and-off the road service records . . . new mileage records. Reports of 100,000 highway miles or more are not uncommon for this Cooper tire.

Tire Body Practically Damage Proof

New Cooper Shock-Guard construction gives still greater overall strength—puts up a practically damage-proof defense against bruises, breaks, blow outs. Impact and shock are uniformly distributed over extra layers of cushioning rubber which are built between the top several piles.

Up to ⅓ stronger Cooper "Hi-T" Tension Set Cord Breakers extend beyond the shoulder area, far down the sides. You can count on phenomenal service, more profitable payloads, plus up to 4 and 5 recaps.

Top Performance, Lower Costs

Whether you require light or heavy duty sizes, you'll find the versatile Cooper Traction-Tread the industry's best buy—even for long distance hauling! On-and-off the road operators can save ⅓ or more on tire costs—highway haulers will get the lowest cost per mile ever! These savings are as near as your telephone. Call your Cooper truck tire dealer today; or write direct for details. Cooper Tire & Rubber Co., Findlay, Ohio.

miles ahead **Cooper TIRES**

Cooper Tires



Walter Snow Fighter



Walter Snow Fighter-Crane Combination



Walter Wrecker

If TRACTION is your problem— WALTER is your answer!



Walter Line Construction Truck



Walter Beach Refuse Truck



Walter Logger and Winch Truck



Walter Oilfield Service Truck

WALTER trucks do the jobs other trucks can't handle—keep going on soft dirt, mud, sand, snow, ice and slippery grades when all other trucks slip, stall and bog down.

100% four wheel traction is the answer—provided by the unique WALTER 4-Point Positive Drive system. Three automatic locking differentials concentrate engine power on the wheels having most traction —eliminate wheel spinning—assure constant drivepower.

Get complete facts on WALTER 4-Point Positive Drive for high-traction, stall-proof operation on difficult ground conditions. See your WALTER dealer—or write us for literature.



Walter Fire Fighter



Walter Tractor-Trailer Combination



Walter 20-ton Dumper

WALTER MOTOR TRUCK CO.

1001 Irving Ave.

Ridgewood 27, Queens, L. I., N. Y.

WALTER 4-POINT POSITIVE DRIVE SNOW FIGHTERS® • TRACTOR TRUCKS

STOP

INSIST ON

American Brakeblok

AMERICA'S SAFETY BRAKE LINING

Get 3-Way Protection

1. Protects Loads—Accidents, even minor ones, cost money. And when they damage loads, they can cost customers, too! American Brakeblok protects loads. It responds instantly, to the severest demands, under all driving conditions.

2. Protects Equipment—Investing thousands of dollars for rolling equipment and then using inferior or unknown brake lining is false economy. American Brakeblok safeguards your investment. It retains its superior stopping ability throughout its entire life.

3. Protects Profit—Cut costs and profits improve. American Brakeblok requires fewer adjustments, reduces labor and equipment down time. It protects drums, too; saves replacement costs.

heavy duty lining

Look for the brand!



Leading fleet owners have proved all this. That is why they have made American Brakeblok first choice on their equipment. Give your fleet this three-way protection. Call your nearby N.A.P.A. Jobber or write us direct.

AMERICAN Brake Shoe COMPANY

AMERICAN BRAKEBLOK DIVISION EXECUTIVE OFFICES, Detroit 9, Mich.
Plants in Winchester, Va. • Cleveland, Ohio • Hillburn, N. Y. • Lindsay, Ont. • Gif, France

Mount Tubeless Truck Tires in Under 2 MINUTES (dismount in under 1 minute)...

by POWER with a





BISHMAN HEAVY DUTY TRUCK TIRE CHANGER

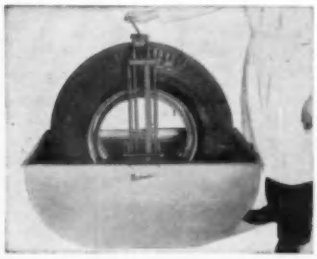
Handles drop center wheels or rims, 17.5, 19.5, 22.5, 24.5, without lifting. Powerful self centering air chuck operates with a flick of the wrist. Electric powered rotating arm mounts both beads and complete operation takes less than 2 minutes. Dismounting is even faster . . . less than 1 minute to put wheel on machine, remove tire and take wheel off. Tire removing tool, designed by Bishman to prevent damage to tubeless tires, approved by major rubber companies.

Change Tubeless Truck Tires the FAST—SAFE way with the BISHMAN #932 Heavy Duty Truck Tire Changer.

Testing Tubeless Tires is a ONE MAN JOB with the new

BISHMAN *TUBELESS TRUCK TIRE TESTER*

Just roll mounted tire onto tire handler, tip into tank and rotate with hand crank to test for ALL leaks. It's fast and easy . . . provides a simple, positive method for testing tubeless truck, and off-the-road, tires up to 49" in diameter. Find ALL leaks with the BISHMAN #934 Tubeless Truck Tire Tester. Ask your equipment jobber or write direct.





Bishman MANUFACTURING COMPANY

OSSEO 4
MINNESOTA

Can you save $2000 per year – per truck on refrigeration costs?



Mr. Cecil Clupper

All-electric truck refrigeration powered by General Electric is saving the Clupper Dairy, Wabash, Indiana, about $2000 a year—*on one wholesale delivery truck.*

Here's a breakdown of the dairy's 1955 savings on the truck reported by Mr. Cecil Clupper, owner:

Saves $1.50 each day on ice costs—"No more ice costs with the all-electric system—saves us at least a dollar and a half a day."

Saves $2.00 to $4.00 on labor costs each day—"Melting ice used to force us to come back and re-load with fresh ice after covering about half the route. This used to cost us two to four dollars a day for labor, and two to three hours in time."

Saves up to $5.00 each week on truck maintenance—"My all-electric system is light—about seven hundred pounds lighter than a cold-plate system, for example. Less weight means less wear and tear on the truck. Consequently, my garage bill goes down about four to five dollars a week."

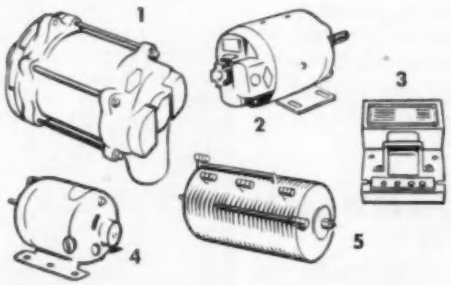
Benefits other ways—Other benefits Mr. Clupper reports include: easy plug-in to 115-volt a-c outlet makes the truck a warehouse on wheels, dry cold eliminates sloppiness of ice. More room for payload results because all-electric system is more compact. Spoilage costs are reduced because system provides uniform cold.

CLUPPER DAIRY SAVINGS POSE A QUESTION:

Can you afford *not* to invest in all-electric truck refrigeration? Three-quarter to three-ton systems are available. For list of system manufacturers and free bulletin, send in coupon below today. General Electric Company, Schenectady, N. Y.

Progress Is Our Most Important Product

GENERAL ELECTRIC



Electrical components for all-electric truck refrigeration: (1) alternator (2) compressor drive motor (3) voltage regulator (4) evaporator-fan motor (5) selenium rectifier.

ACT NOW! Send for FREE bulletin

Section B634-B
General Electric Company
Schenectady 5, New York

Please send me your new bulletin GEA-6084-B describing the benefits of all-electric truck refrigeration powered by General Electric.

NAME.....

COMPANY.....

STREET.....

CITY..... ZONE..... STATE.....

Only **HIGHWAY** makes the Freightmaster!



super strength...

for the toughest hauling jobs!

Trailers can *look alike*, but when you're looking for *real* strength and durability, the Highway Freightmaster is your answer for the most strenuous trucking operations!

Integral stake and panel construction, with boxed-in corrugations at all vertical panel laps and double shear riveting, guarantees maximum sidewall strength. Highway's wall thickness is 1½", yet maximum inside width is still maintained.

The Freightmaster is built of quality materials, to the highest engineering standards and by seasoned trailer craftsmen, to give you added years of dependable, profitable service. Whether you choose steel or aluminum, standard or high cubage models, Highway Freightmasters are made to take it! For top hauling dollars under difficult load conditions specify the *Highway Freightmaster!*

HIGHWAY TRAILERS

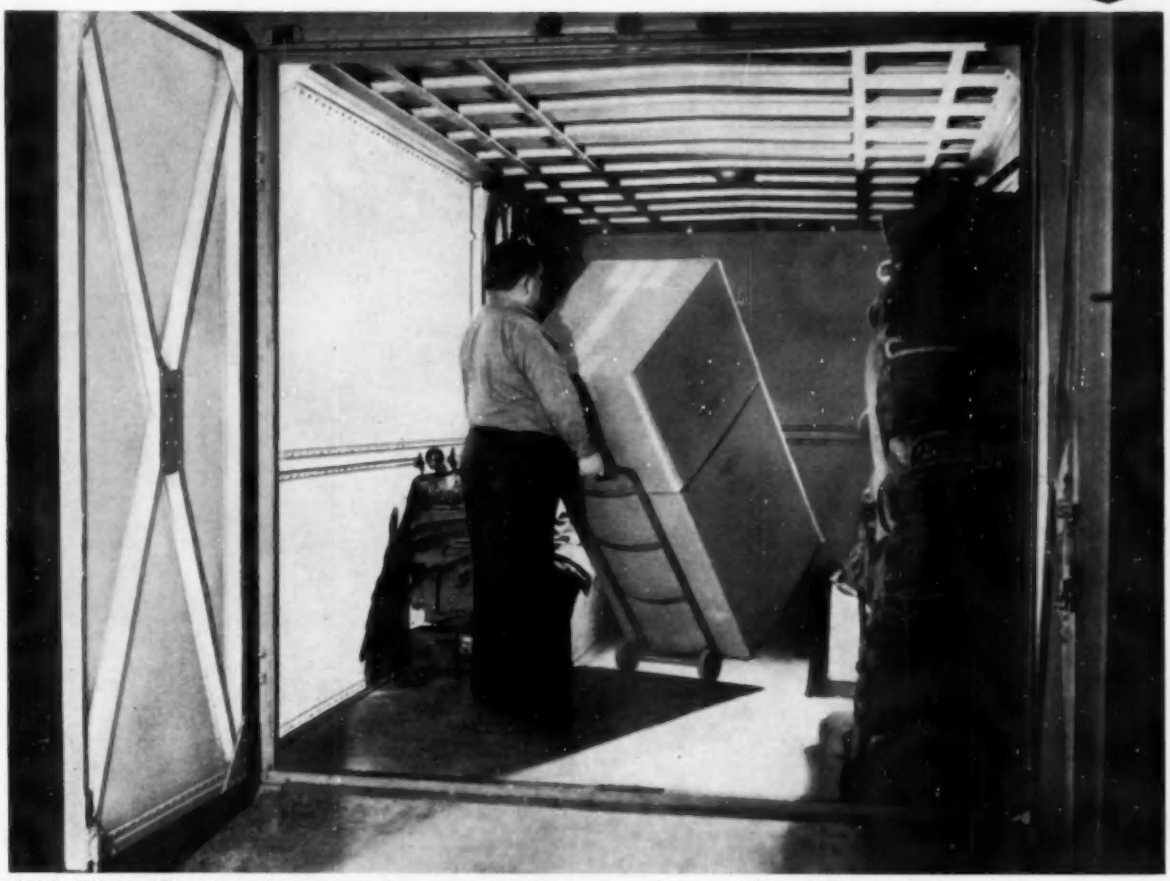
HIGHWAY TRAILER COMPANY

EDGERTON, WISCONSIN

MANUFACTURERS OF: Commercial Trailers • Trailerized Tanks and Dry Bulk Haulers • Public Utility Bodies • Earth-Boring Machines • Pole and Cable Reel Trailers • Winches • Power Take-Offs • Service Accessories

SALES AND SERVICE IN PRINCIPAL CITIES

DOW



OPEN THE DOORS to better body construction and more trucking profits with strong, lightweight Dow magnesium.

Business end of the truck . . . why it should be

MADE WITH MAGNESIUM

Ruggedness, light weight and the new monocoque construction benefit both body builder and trucker

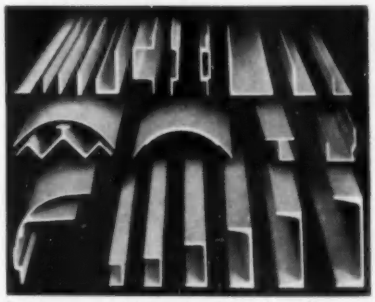
Six important questions for body builders and truckers:

How can you, as a *body builder*, simplify your assembly? Reduce construction costs? Improve body design—and its sales-appeal? How can you, as a *trucker*, reduce truck weight and increase payload? Cut operating costs—on fuel, tires, insurance and even taxes? Reduce maintenance requirements?

The answer to all these vital questions is *magnesium*, the world's lightest structural metal—and the new monocoque truck body construction.

This magnesium monocoque (simplified thick-sheet construction) design, because of its superior ruggedness, eliminates the need for interior frame posts and adds 34 cubic feet to the capacity of a twelve-foot body! Protective lining, ordinarily required by thin-sheet construction, is also eliminated.

For lighter, stronger construction . . . for more profitable construction, be sure to consider magnesium. Additional information is available from your Dow sales office or THE DOW CHEMICAL COMPANY, Magnesium Sales Department MA 373N, Midland, Michigan.



Pre-engineered Magnesium Parts from Dow are stocked for prompt shipment! Order the required shapes, sizes and lengths for your particular needs. This saves tooling and construction costs. Magnesium's light weight (one third lighter than aluminum) means easier, faster handling in assembly.

you can depend on DOW MAGNESIUM

DOW

TOUGH
...where it counts!



WITH

A.W. DYNALLOY

Truck bodies demand many hidden qualities to withstand the severe demands of day-in, day-out deliveries—qualities like basic strength in the steel itself, strength in the die-formed members, strength in the design and fabrication of the body.

Put these—and many more—qualities together with teamwork—at no price penalty—and you have the reason why more and more buyers find that the combination of . . .

. . . Dynalloy by ALAN WOOD STEEL COMPANY

. . . Press-formed by PARISH PRESSED STEEL CO.

. . . Body by BOYERTOWN AUTO BODY WORKS

. . . is the perfect answer to their truck body problems.

The formula is simple. Start with high-strength, low-alloy, corrosion-resistant Dynalloy. Then body sections are skillfully press-formed by Parish, who build more than 1,000,000 automotive frames annually. Then add engineering and fabrication by Boyertown, for 83 years the accepted standard in the delivery body field.

The result—more strength—per pound—per dollar—in your next delivery truck body.

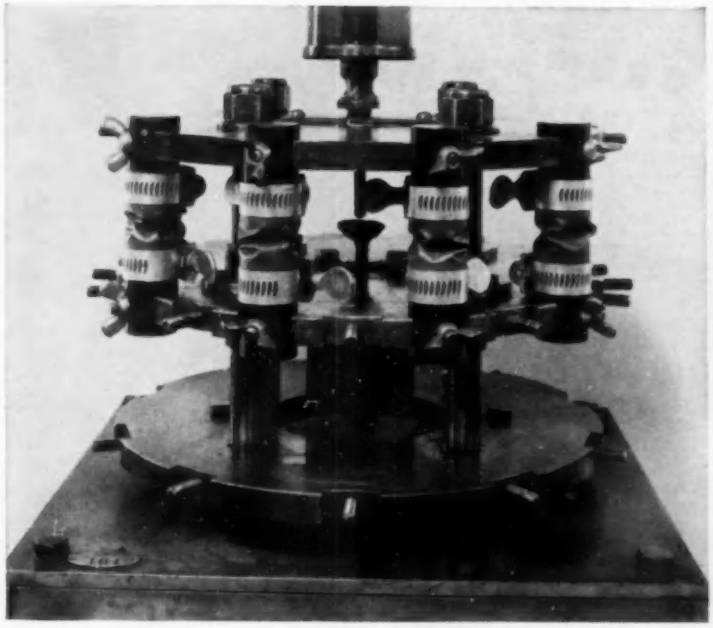
ALAN WOOD STEEL COMPANY

steelmasters for 130 years • *CONSHOHOCKEN, PENNA.*

DISTRICT OFFICES AND REPRESENTATIVES: Philadelphia • New York • Los Angeles • Atlanta
Boston • Buffalo • Cincinnati • Cleveland • Detroit • Houston • Pittsburgh • Richmond • St. Paul
San Francisco • Seattle • Montreal and Toronto, Canada—A.C. Leslie & Co., Limited

IRON PRODUCTS
"Swede" *pig iron*
STEEL PRODUCTS
Plates (sheared)
A.W. Dynalloy (high-strength steel)
Hot rolled sheets
Hot rolled strip
Cold rolled sheets
Cold rolled strip
ROLLED STEEL
FLOOR PLATE
A.W. ALGRIP *abrasive*
A.W. SUPER DIAMOND *Pattern*
COAL CHEMICALS
A.W. CUT NAILS
Standard & Hardened
MINE PRODUCTS
Iron ore concentrates
Iron powder
Crushed stone
Sand
COKE
Foundry, industrial & metallurgical
PENCO METAL PRODUCTS DIVISION
Steel cabinets, lockers & shelving

DY-91



Flexibility test assures you of extra-long service from Tarps of Fairprene®



Smooth-surfaced tarps of Du Pont "Fairprene" *stay* smooth and easy to handle, trip after trip, loading after unloading. Proof of this is the flex-resistance test "Fairprene" tarp material undergoes. The vibrator shown above condenses years of active service into hours, but leaves no evidence of cracking!

Besides possessing flex resistance, tarps of "Fairprene" are weather- and heat-resistant . . . stay pliable and strong in rain or shine. Waterproof, also, they can be stored wet without danger of mildew, rot or shrinking. They're so light one man easily handles them—but so rugged grease, oil and most chemicals have no effect. You can order tarps of "Fairprene" in light, medium and heavy-duty weights.

For further information as to how these tarpaulins can save you time, labor and money, mail coupon below for new "Fairprene" bulletin.

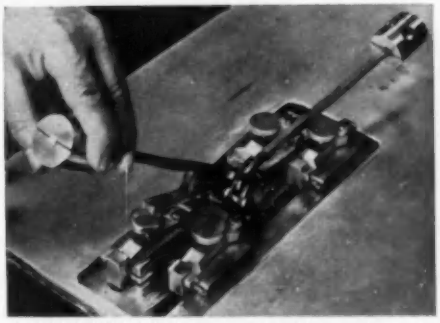
Du Pont "Fairprene" passes these tests, too!



HIGH-SLIP finish of "Fairprene" tarp material allows weight to slide to bottom. Equal weight catches and stops on coarse surface of ordinary tarp material.



UNIFORMITY of weight and thickness of "Fairprene" tarp material is assured by beta-ray testing. Thickness of coating is rigidly controlled.



SCRUB RESISTANCE is demonstrated by scrub test . . . insuring a secure bond between the chemical rubber coating and fabric backing.

DU PONT INDUSTRIAL COATED FABRICS

E. I. du Pont de Nemours & Company (Inc.)
Fairfield, Conn.

DU PONT
REG. U. S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING . . . *THROUGH CHEMISTRY*

*"Fairprene" is Du Pont's trade-mark for coated fabrics, sheet stocks, and cements.

E. I. du Pont de Nemours & Co. (Inc.)
Fabrics Division—CC-64, Wilmington 98, Delaware

Please send me your bulletin on "Fairprene" for tarpaulins and swatches of weights available.

*Name*_____ *Position*_____

*Firm*_____

*Address*_____

*City*_____ *State*_____

GUNITE BRAKE DRUMS
FOR TRUCKS, TRAILERS, BUSSES



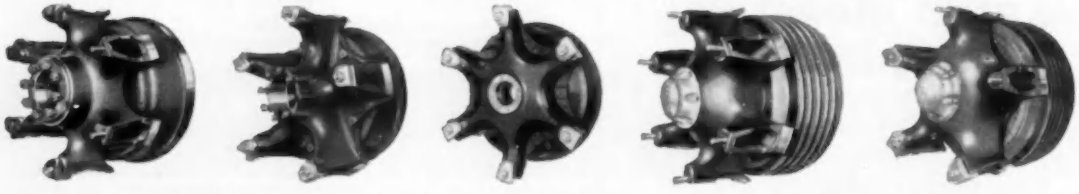
Lower Cost per Mile . . .

Less down time . . . longer drum and lining life . . . more dependable brakes and greater operating safety are yours with Gunite Brake Drums. Gunite experience, Gunite design and Gunite-Metal combine to bring you better, safer, brake operation at lower cost per mile. Specify Gunite Brake Drums on a test vehicle or fleet . . . and watch costs go down.

Call Your Gunite Distributor

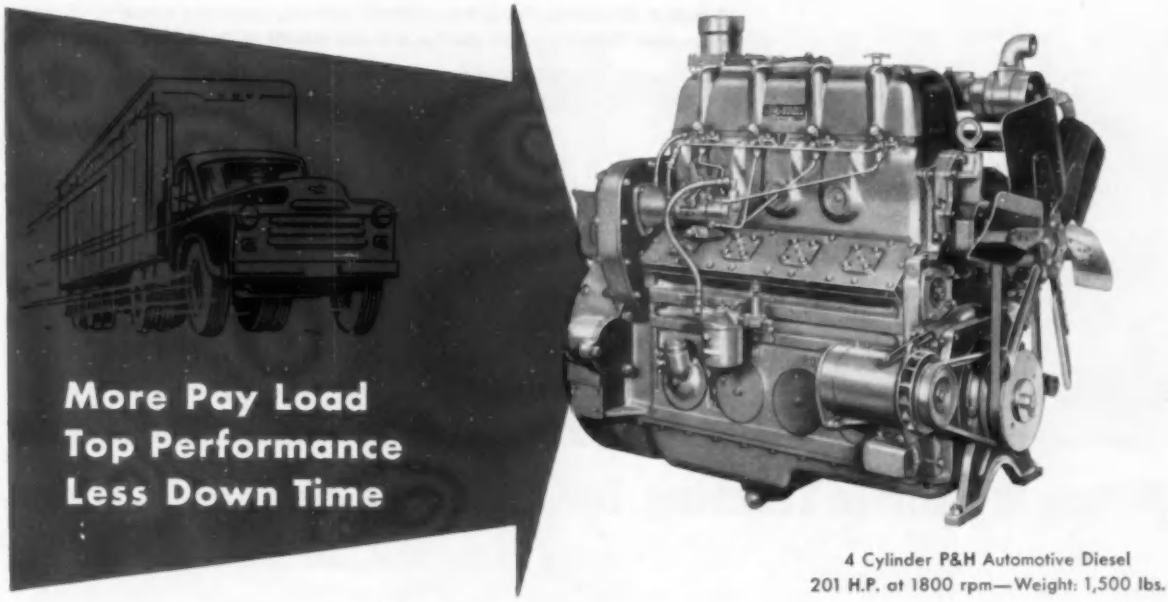
Or Write and We'll Have Him See You

Gunite Cast Steel Wheels for Trucks, Trailers and Busses



GUNITE FOUNDRIES CORPORATION • ROCKFORD, ILLINOIS

Established in 1854



4 Cylinder P&H Automotive Diesel
201 H.P. at 1800 rpm—Weight: 1,500 lbs.

USE MONEY MAKING P&H DIESEL POWER

Every pound of weight saved on a tractor increases your opportunity for bigger pay loads. That's why trucks that are now powered with P&H Diesels haul up to 1,000 pounds more each day than they formerly did. The extra dollars in revenue which results from switching to a P&H Engine often runs into four figures each year! It pays for itself with the extra freight it hauls during the course of its life.

A heavy duty, 2-cycle P&H Engine of modern aluminum design, pound for pound, delivers 43% greater horsepower than the average* Diesel. It can become money making power for you, too, by freeing you from the weight of a heavier engine.

A real lightweight, power house! Pulling power and plenty of it. High torque, too. Truly a "hill-flattener" when clearing inclines with a full load. A P&H Automotive Type Diesel accelerates and decelerates fast. Drivers like its instant response and quick get-a-way.

You get more operating time and save on driver costs, too. Simplicity of P&H Diesel design with 25% fewer parts makes servicing easy. After thousands of hours on the road, overhaul is accomplished without tying up a truck for days. A P&H exclusive, the "unitized" P&H power assembly makes possible complete overhaul in a matter of only hours.

It will pay you to investigate the unusual values of 2, 3, 4 and 6 cylinder P&H Automotive Type Diesels for powering trucks from 35,000 pounds G.V.W. and up. Send today for more complete information.

*Based on comparisons of continuous h.p. ratings of 5 leading Diesel engines for automotive application.

For Modern Engineering, Look to

HARNISCHFEGER

P&H DIESEL ENGINE DIVISION
Crystal Lake, Illinois

P&H Diesel Engine Division
Harnischfeger Corporation
Crystal Lake, Illinois

Please send me complete information on P&H Automotive Type Diesel Engines.

Name_____

Company_____

Street_____

City_____ Zone_____ State_____

Milam & Sproule Trucking, Inc., Streator, Illinois, operating trucks in all kinds of service—over the road and local—uses only STANOLUBE HD-M Motor Oil.



Milam & Sproule Trucking, Inc. finds one oil for all service

STANOLUBE HD-M Motor Oil replaces several lubricants . . . simplifies maintenance, reduces inventories, improves operations.

All types of hauling are done by Milam & Sproule Trucking, Inc., Streator, Illinois. Some units in local, short haul service have a considerable amount of idling time with resultant low crankcase oil temperatures. Other units hauling maximum loads on tight schedules, in over-the-road service, experience extremely high oil temperatures. STANOLUBE HD-M Motor Oil has proved suitable for all trucks.

Before accepting a Standard Oil automotive engineer's recommendation to install a single motor oil in all units, Milam & Sproule Trucking, Inc., employed several motor oils. The type of oil depended upon the service in which the truck was used. Standard Oil automotive engineers, working with Milam & Sproule maintenance men, developed a five point program:

1. Established an effective PM system.
2. Set up a drain program for all units.
3. Raised low crankcase temperatures by using proper thermostats.
4. Set up driver education program with emphasis on harmful effects of extended idling.
5. Adopted a single motor oil for all units—STANOLUBE HD-M.

Major overhaul time has now increased to well over 100,000 miles. Valve life has practically doubled. Oil inventories are reduced and misapplication hazards eliminated.

Standard Oil automotive lubrication specialists will perform this service for you. One of these Standard men is near you in any of the 15 Midwest and Rocky Mountain states. Call him. Or write Standard Oil Company, 910 S. Michigan Ave., Chicago 80, Ill.



Nye Milam (left) and Ray Elgas, Standard Oil automotive lubrication specialist discuss lubrication. Ray Elgas has been working with truckers on automotive lubrication for more than 12 years. Ray attended the University of Nebraska and is a graduate of the Standard Oil Automotive Sales Engineering School. Customers find this experience and training pay off for them.

***Quick Facts About* STANOLUBE HD-M Motor Oil**

1. STANOLUBE HD-M Motor Oil is refined from high quality, solvent extracted base stocks.
2. STANOLUBE HD-M contains specialized additives that prevent bearing corrosion, reduce piston varnish and keep rings free to seal against blow-by.
3. STANOLUBE HD-M contains still other additives to reduce wear, prevent damage to cams, tappets and other heavily stressed parts.

STANDARD OIL COMPANY
(Indiana)

STANDARD

TDA® BRAKES

if it moves...we can stop it



new "DM" brake

...farm equipment

...special duty utility trailers

...lightweight highway trailers

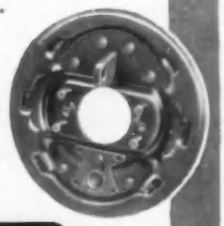
...industrial machinery

"DM" DUPLEX MECHANICAL BRAKE

Best on many jobs, this rugged new DM Brake actually outperforms more specialized brakes. It has proved its worth with farm equipment, special duty utility trailers, light duty highway trailers, industrial machinery, and in a wide variety of special applications. In its many fields, the DM Brake has given outstanding service—providing exceptionally high-torque output and maximum performance for its size.

Greater torque output! The DM Brake is a self-energizing, balanced type . . . the two identical shoes do an equal amount of work in either forward or reverse direction.

Simpler Maintenance and Adjustment! The DM Brake is wedge-actuated through an easily accessible operating lever, giving positive braking with immediate response. The DM Brake can be actuated by either an air or hydraulic cylinder, or mechanical means. Complete accessibility permits quick, easy adjustment. Simple design minimizes maintenance and service.



For expert consultation on your brake problems, contact the Timken-Detroit® Brake Division. Specifications of the DM Brake now available.

©1956, R S & A Company

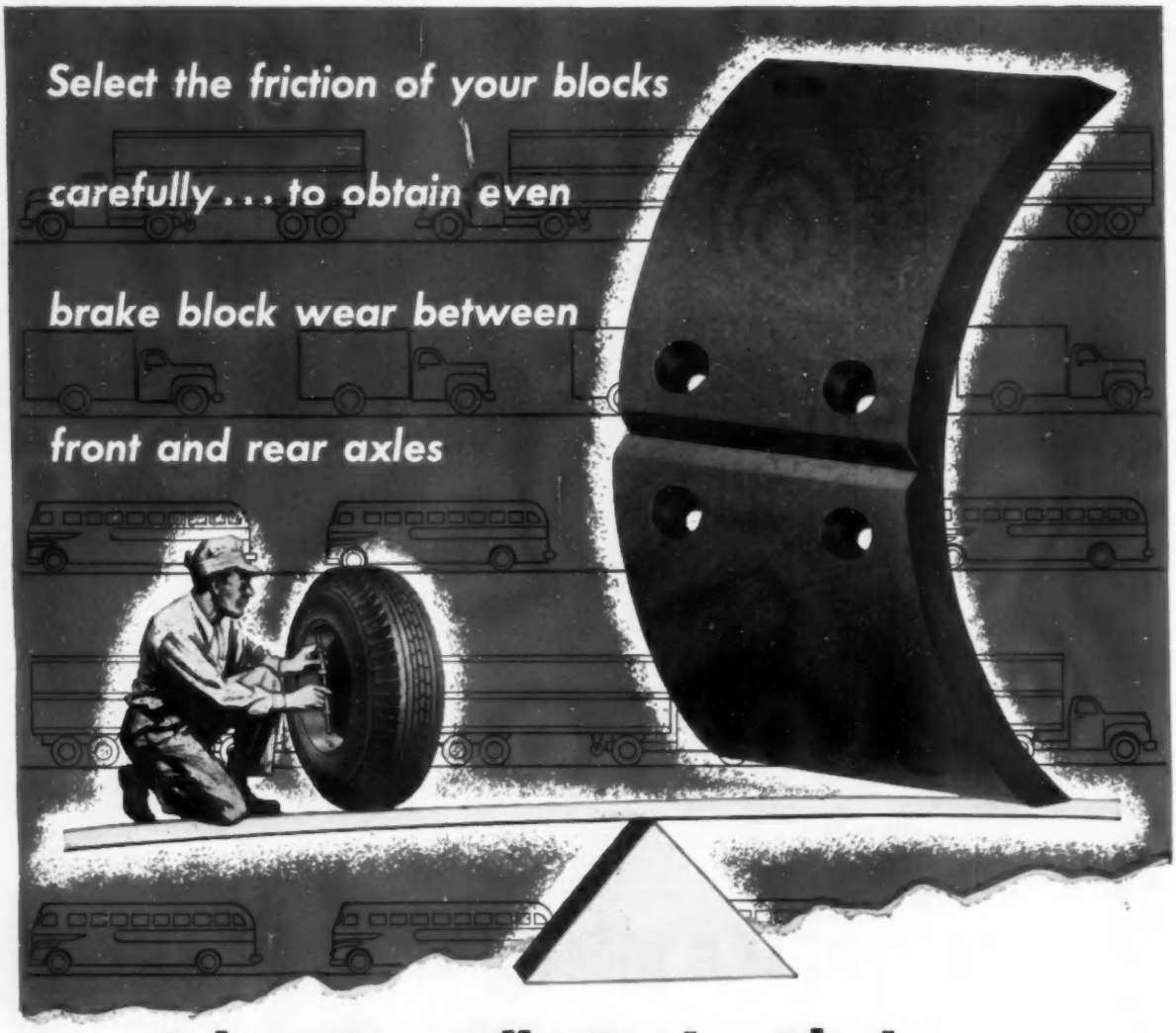
TIMKEN Detroit BRAKES

TIMKEN DETROIT BRAKES DIVISION
ROCKWELL SPRING AND AXLE COMPANY
ASHTABULA, OHIO

Accepted TDA Standard

For every industrial, agricultural or automotive application where braking is required!

TDA plants at: Detroit, Michigan • Oshkosh, Wisconsin • Utica, New York
Ashtabula, Kenton and Newark, Ohio • New Castle, Pennsylvania



Johns-Manville Brake Blocks . . .

give you top performance at lowest cost per mile

To meet the widest possible range of braking conditions, Johns-Manville Brake Blocks are supplied in individual units, or combination sets of high, medium or low frictional characteristics. This flexibility permits custom engineering for every type of brake to meet every type of condition encountered in the operation of bus and truck fleets.

To bus and truck operators, this means lower brake cost per mile, smoother stops, minimum shop and out-of-service time. Most of all, it means *dependability under all driving conditions.* If you would like more information on Johns-Manville Brake Blocks, write Automotive Division, Johns-Manville, Box 60, New York 16, N. Y. In Canada, Port Credit, Ontario.

JM Johns-Manville *asbestos* FRICTION MATERIALS

For Engine Rebuilding... MODERN SUNNEN EQUIPMENT PAYS OFF...

Because it...

- ✓ **Puts Vehicles Back In Service Faster**
- ✓ **Keeps Them In Service Longer**
- ✓ **Gets Better Performance At Lower Operating Cost Per Mile**

Sunnen shop equipment will give you these results because you get "factory-accurate" work that is controlled and *measured* to be sure you get the exact size you want.

FOR PIN FITTING AND ROD RECONDITIONING

Sunnen Honing Machines have no equal for producing exact clearance or interference pin fits. There's no guesswork—every hole is accurately gaged, and held within a "tenth."

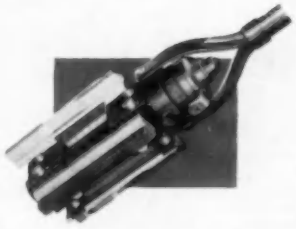
Sunnen Rod Reconditioning Mandrels for honing the crankpin end of rods—combined with the Sunnen Cap and Rod Grinder—enable you to save real money by reconditioning rods quickly and accurately to original standard size.



Sunnen Heavy-Duty Honing Machine
Model LBB-1299—Hones all bushings and bores from .370" to 3.300" in diameter including pistons, rods, spindle bodies, hydraulic brake cylinders, steering sector housings and air compressor cylinders.



Sunnen Cap and Rod Grinder
Model CRG-500—for precision grinding cap and rod faces at the parting line. Machine includes diamond dresser and rod assembly fixture.



FOR CYLINDER HONING

Sunnen Cylinder Grinders produce an ideal surface finish that permits rings to "seat" quickly. Use them for complete reconditioning, for finishing after boring, or for partial reconditioning on "ring" jobs. 4 models handle diameters from 1¾" to 14½".



FOR CRANKSHAFT GRINDING SERVICE

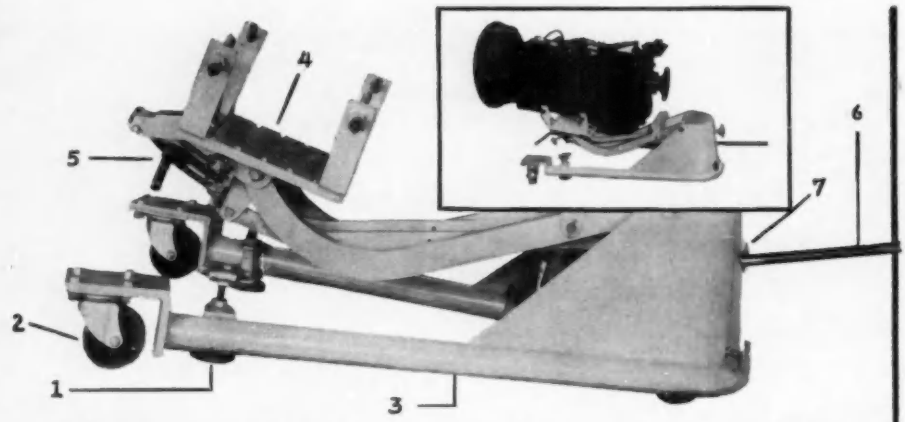
Sunnen Portable Crankshaft Grinder grinds crank pins right in the engine. Alignment is positively maintained and accuracy can be held within .001". Handles diameters from ¾" to 7".

We'll be glad to send complete information or demonstrate these and other Sunnen products right in your shop. Write today.

923

SUNNEN PRODUCTS COMPANY
7900 Manchester Ave., St. Louis 17, Mo.
Canadian Factory: Chatham, Ontario

For Your Protection Insist On Sunnen Measured Pin Fits



MOVES 1200 LB. TRANSMISSIONS!

1. Position lock holds dolly to floor when installing transmission.
2. Loaded dolly moves easily on 4" heavy duty casters.
3. 2" steel pipe, one piece construction.
4. 12 inch x 14" sliding transmission platform equipped with universal cradle; hardened set screws.
5. Hydraulic jack mechanism moves platform forward.
6. Portable hydraulic jack raises and lowers.
7. Hand wheel adjusts tilt of platform.

Hydraulic controls move the sliding transmission platform forward at any desired angle, independent of the dolly frame, to align accurately for inserting spline. Drilled platform comes equipped with universal cradle, hardened set screws.

TWO NEW TIME saving MONEY saving TOOLS



In perfect balance — operator handles heavy dual wheels with ease.



CAM "Y" DOLLY

handles dual wheel units faster—safely!

The T-handle gives complete control of load and maneuvering. Hinged rollers assume angle of axle on jack and prevent binding. Caster-jack lifts and lowers the heaviest dual as easily as the lightest single.



Single wheels are handled with equal ease — here stabilizer is used with singles.

for heavy duty truck operators

TIRE CHANGER



Fast and Positive

TRUCK CRANES



Mechanical and hydraulic

BEAD BREAKER



Safe for Tubeless Tires

PORTABLE CRANES



Mechanical and hydraulic

TO ORDER: Contact your Automotive Jobber or write direct to Cam Tool Company for catalog sheets, prices, specifications.

CAM TOOL CO.
11 RANDWICK AVE.
OAKLAND 11, CALIF.



in mild weather — temperatures just above freezing or higher—the Pittsburgh refuse trucks are hosed daily. This means that the bodies are alternately wet and dry day after day—a real test of the corrosion resistance of any metal.

"USS COR-TEN steel bodies

still good after more than eight years,"

says **Mr. Leo Gill,** Director, Automotive Equipment
City of Pittsburgh, Pittsburgh, Pennsylvania

In 1947 the City of Pittsburgh ordered a fleet of new refuse trucks, to be fabricated by Doerr Brothers, Pittsburgh. USS COR-TEN High Strength Steel was specified by the City of Pittsburgh for use in the bodies of these trucks.

Now, more than eight years later, this choice of COR-TEN steel has paid off. These trucks have been real "work horses." Carrying big loads of corrosive garbage they have made four trips a day, six days a week, up and down Pittsburgh's hilly streets. The results: The trucks are still in good condition—there is virtually no loss of metal, no sign of corrosion. Mr. Leo Gill, Director of Automotive Equipment, reports that the City of Pittsburgh is well satisfied with its fleet of USS COR-TEN steel trucks and that the bodies greatly outlast those of carbon steel. By 1955 Pittsburgh had 120 of these cost-reducing refuse trucks in operation.

USS COR-TEN High Strength Steel has many properties which make its application especially valuable in trucks of all kinds. Because USS COR-TEN steel has a yield point 1½ times that of regular carbon steel, has 4 to 6 times the resistance to atmospheric corrosion, has 50% higher fatigue strength and offers superior resistance to abrasion and impact, it is the preferred choice of many truck fabricators to give the equipment they build greater strength, longer life, more capacity or lighter weight.

For more information on USS COR-TEN steel, send for a free booklet, or contact the nearest District Sales Office of United States Steel.

NOW AVAILABLE!

Our new "Design Manual for High Strength Steels" is ready for distribution. This excellent book contains comprehensive and practical information that you will find extremely useful in designing your product for greater economy and efficiency by the sound use of high strength steels.

For your free copy, write on your company letterhead giving your title or department to United States Steel Corporation, Room 5296, 525 William Penn Place, Pittsburgh 30, Pa.

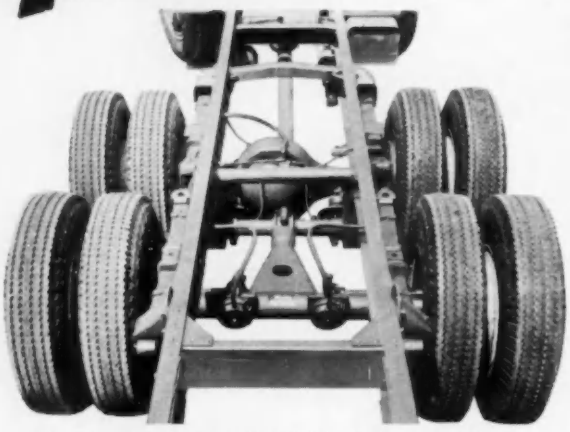
UNITED STATES STEEL CORPORATION, PITTSBURGH • AMERICAN STEEL & WIRE DIVISION, CLEVELAND • COLUMBIA-GENEVA STEEL DIVISION, SAN FRANCISCO
NATIONAL TUBE DIVISION, PITTSBURGH • TENNESSEE COAL & IRON DIVISION, FAIRFIELD, ALA. • UNITED STATES STEEL SUPPLY DIVISION, WAREHOUSE DISTRIBUTORS
UNITED STATES STEEL EXPORT COMPANY, NEW YORK

USS COR-TEN High Strength STEEL

USS

UNITED STATES STEEL

Trucktor® QUALITY SUSPENSIONS



View showing complete assembly installed at Trucktor factory, using parts furnished with Universal Trucktor Kit.

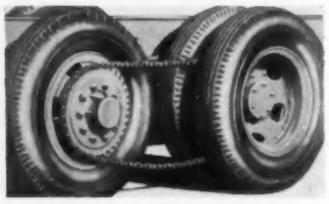
LIGHTWEIGHT
Trailing Axles for Trucks and Tractors—
Tandem Assemblies for Semi-Trailers

NEW LOW-COST UNIVERSAL Trucktor® KIT

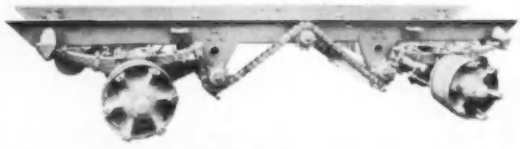
Now, truck owners can convert 4-wheel trucks into doubly profitable 6-wheelers at a substantially lower cost than was ever before possible . . . with the New Universal Trucktor Kit. The Kit provides all necessary parts to install a tubular trailer axle rated at 18,000 lbs. capacity . . . using your trailer axle with air or hydraulic brakes and wheels.

Trucktor's proven design provides long life, low maintenance in all Trucktor Suspensions.
Trucktor Trailer Suspensions combine durability, light weight . . . no axle hopping.

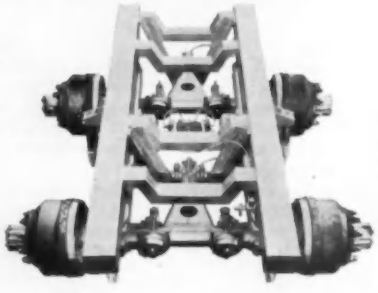
TRUCKTOR *Detachable* Chain-and-Sprocket 4-WHEEL DRIVE



Makes tire chains unnecessary. When extra traction is needed, sprocket chains are slipped over sprockets and pinned. Attached and detached quickly, simply, without removing wheels (in picture, wheel removed to show construction).

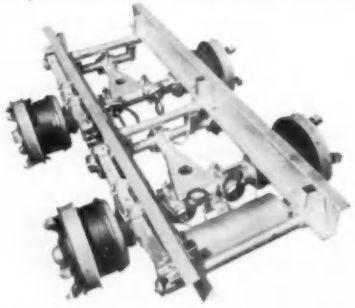


SPREAD TANDEM ASSEMBLY for Trailers Model TT-18-S



TRUCKTOR Air Ride TANDEM SUSPENSIONS for Semi-Trailers Model TH-36-GA

LIGHTWEIGHT Steel Spring TANDEM SUSPENSIONS for Semi-Trailers Model TT-16-Z



DISTRIBUTORS WANTED. TERRITORIES OPEN.

For further information write to

THE TRUCKTOR CORPORATION, ROUTE 22, MOUNTAINSIDE, NEW JERSEY

CLEVITE* 77 *tri-metal* BEARINGS

- *wear longer under rough usage*
- *improve engine performance*
- *cut "down-time"*
- *reduce maintenance*
- *improve your operating profit*



● The remarkable **CLEVITE 77** bearing — the closest approach to a *perfect* heavy-duty bearing yet devised —does all of these things. Here is what one leading truck manufacturer says: "The bearings known as Clevite 77, are recognized as being the finest now available for truck operation. The importance of Clevite 77 bearings cannot be over-emphasized for they not only reduce bearing, crankshaft and connecting rod maintenance costs, but also assure longer power plant life, which means lower ton-mile truck operating costs."

CLEVITE 77 will pay *you* dividends when you install this finest precision quality bearing in *all* your repair work on heavy-duty equipment.

CLEVITE 77 is sold everywhere—through a nation-wide network of N.A.P.A. jobbers.

Stocks are *complete* . . . prices *right* and service is *the best!*

NAPA Assurance of Quality

Your NAPA Jobber is a Good Man to Know!

Next time play SAFE - Order Monmouth* Bearings* CLEVITE 77 or MICRO

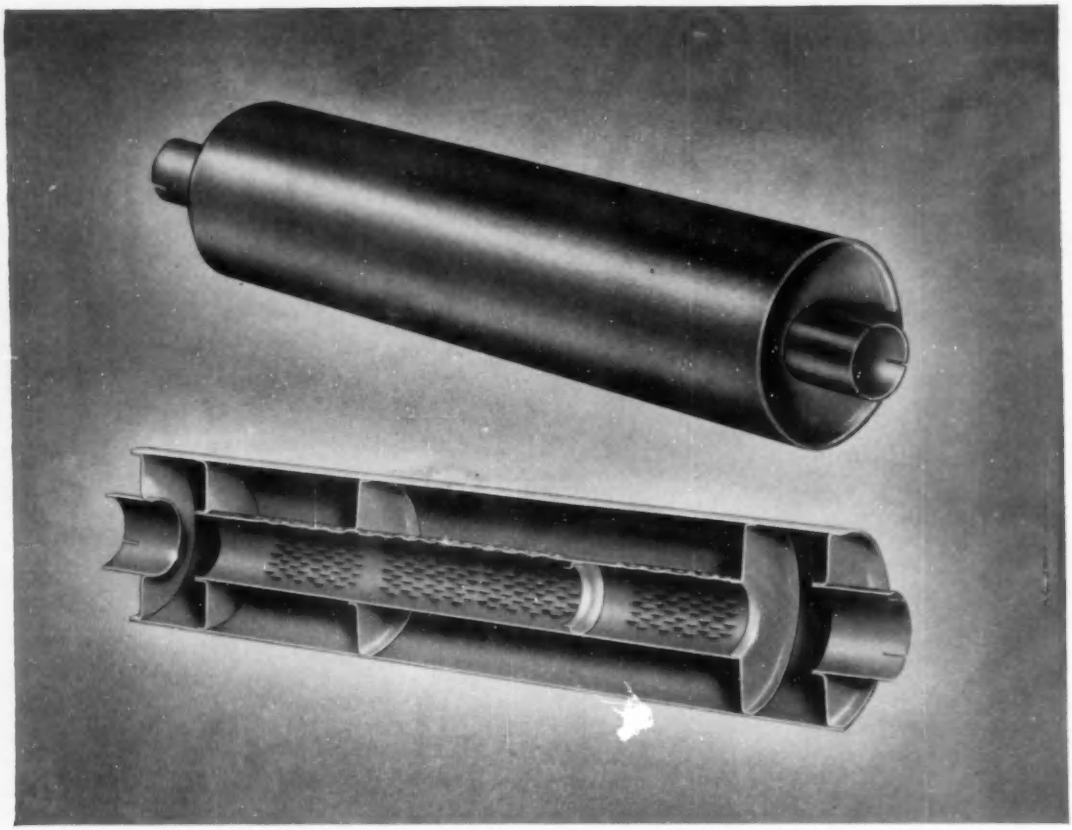
*The words Monmouth, Clevite and Micro are registered trade marks of Clevite Corporation.

Monmouth ENGINE BEARINGS

TRADE MARK



Clevite Service—The Cleveland Graphite Bronze Co.—Division of Clevite Corporation, Cleveland, Ohio, U. S. A.



Five numbers fit 90% of all heavy duty trucks. Applications run from 2½ in. inlet and outlet sizes to 3½ in. inlet and 3 in. outlet sizes. Heads are up to 14 gauge premium steel, tubes up to 16 gauge, shells up to 18 gauge.

AP STRAIGHT-THRU ALUMINIZED STEEL MUFFLER RESISTS EXTREME HEATS... LASTS MUCH LONGER

If you've been knocking the guts out of quiet mufflers trying to get more horsepower—and for your trouble have only gotten more noise, traffic fines, delayed deliveries, driver downtime, and bad public relations—this is the muffler for you.

From both a product and a price standpoint, more and more fleets have found that AP's Straight-Thru Aluminized Steel Muffler is *the way* to greater power, longer life, and quieter operation.

Exhaust gases entering the muffler are broken up by an open resonating chamber to allow an even flow through the inner tube. The exit resonating chamber balances the flow of gases and controls the low-frequency bark.

This special straight-thru muffler is only one of many high-quality mufflers in the AP line of passenger car and truck mufflers. There's a right one for every operation—extreme duty for diesels, heavy duty for big rigs, semi-heavy duty for trucks that normally take passenger car mufflers—plus a complete line of pipes, accessories and everything needed for special hook-ups. Write for free catalog.

THE AP PARTS CORPORATION

7-Q AP BUILDING, Toledo 1, Ohio

MUFFLERS AND PIPES • MIRACLE POWER • dgf 123

GET IT FROM YOUR JOBBER

NEW...G-E *All-Weather* HEADLAMPS WITH AIM-RIGHT GIZMOES



AIM-RIGHT GIZMOES are glass pads—molded into G-E *All-Weather* Headlamp lenses. Now, with *any* low-cost aiming machine, your drivers can enjoy *all* the safe-driving benefits that are built into General Electric *All-Weather* Headlamps. The job of aiming headlamps becomes quick, easy, accurate! Aim-right Gizmoes hug the lens surface . . . and are not vulnerable to breaking, chipping or cracking. They're smooth—feel 'em.

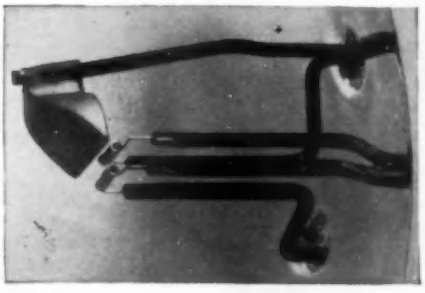
Low-cost aiming machines are available from your supplier.

G-E *All-Weather* Headlamps provide drivers with these features:

G-E *All-Weather* Headlamps give 25% more light to provide better night visibility than was ever before possible! In fog, snow, rain or sleet, these powerful headlamps make use of a filament shield that covers the *lower beam* filament only. It cuts off uncontrolled upward light which, with ordinary headlamps, bounces off moisture particles and reflects back into the drivers' eyes.

The *upper beam* filament is left unshielded to give maximum light for seeing hills, curves and dips in *clear* weather. And on clear nights, their 25% more light means up to an extra 80′ of visibility on the right side of the road!

General Electric Co., Miniature Lamp Dept., Nela Park, Cleveland 12, Ohio.



Progress Is Our Most Important Product

GENERAL ELECTRIC

• SAFE STOPS
• NO FADING
• LONG LIFE
• CONSISTENT ACTION



. . . you'll get <u>all four</u> with Thermoid

Keep your fleet rolling with these superior quality Thermoid Products:



Pre-Stretched Fan Belts, BT Heavy Duty Radiator Hose and the new Thermoid Air Brake Diaphragm

Thermoid Heavy Duty Hydraulic Brake Fluid and Hydraulic Brake Parts

Whether your fleet high-balls along the expressways or crawls through congested stop-and-go city traffic . . . you'll get maximum safety at minimum cost per mile when you use Thermoid Brake Blocks.

Regardless of operating temperatures or weather conditions, Thermoid Brake Blocks perform evenly and consistently—exceed the most rigid stopping tests.

Thermoid

Thermoid Company • Trenton, New Jersey

The NEW RIDGE Rope RATCHET

Here is a device to replace the cumbersome iron ridge pole on open top trailers. It opens a new era of safety, economy and ease of operation to truckers!

- It eliminates overhead lifting and adjusting of iron ridge pole.
- Puts an end to danger of "flying" iron ridge pole.
- Reduces wet freight claims.
- Increases pay loads — Sturdy aluminum alloy Ratchet weighs less than seven pounds.
- Attaches to outside front of trailer.
- Ridge Rope is made taut or loose in seconds by pumping action on Ratchet handle.
- Eliminates loosening tarp ropes for inspection.
- Can be installed in one hour or less.
- Complete equipment costs less than replacement of one iron ridge pole.

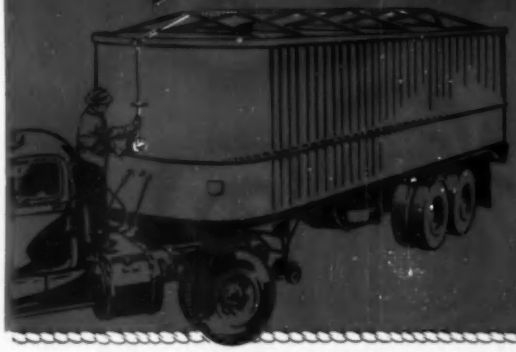


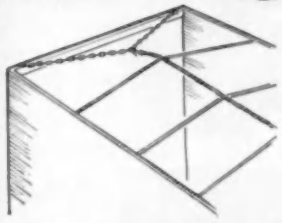
LIST PRICE

$39.85

F.O.B. AKRON, OHIO

Complete equipment includes the sturdy aluminum alloy ratchet, 1 rear header bar sling chain, 41' of 5/8" rope, all necessary nuts and bolts for attaching rope and complete chart with instructions for installation.





Including new rear header bar sling chain and 41' of 5/8" rope with "S" hook ready for mounting.

SOLD BY LEADING TRAILER MANUFACTURERS.

EAST AKRON RATCHET & MFG. CO.

1048 BANK ST. AKRON 5, OHIO



Allied A.P.C.

two metal VALVES

for extra service, and performance

Nitrogen-treated Austenitic Stainless Steel makes the ideal valve head because it holds its strength under terrific heat, won't batter out of shape, and resists warpage and corrosion.

Low Nickel-Chromium Steel is the alloy best fitted to take the terrific pounding the valve-tip gets from cam and tappets.

That's why Allied-A.P.C. permanently fuses these two *specialized* steels into one exhaust valve —the greatest value you can offer your customers at *any* price. Available in conventional and rotating types . . . Stellite-Faced . . . Sodium Filled. See your Allied Jobber for these nationally advertised motor parts, all engineered and built to the highest standards of accuracy.



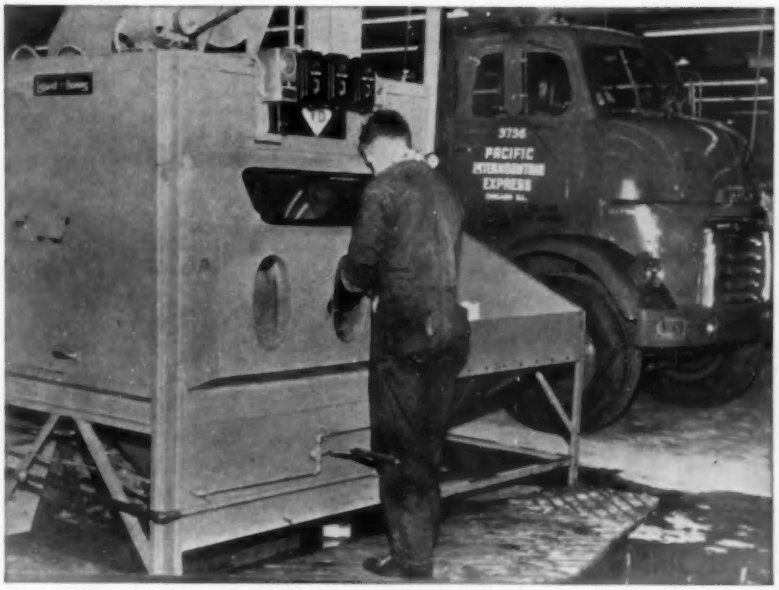


Allied MOTOR PARTS

ALLIED MOTOR PARTS COMPANY • DETROIT 1, MICHIGAN

Pistons • Cylinder Sleeves • Cylinder Sleeve Assemblies • Piston Pins Piston Pin Bushings • Piston Pin Set Screws • Piston Pin Lock Rings Valves • Valve Guides • Valve Keys • Valve Springs • Hardened Valve Seat Inserts • Expansion Plugs • Water Pumps • Water Pump Parts and Packing

NAPA Headquarters of Quality



P. I. E. Employs Vapor Blast to Speed Engine Overhaul

Reprinted by permission of the Denver Post

VAPOR BLAST, also known as Liquid Honing, is now in use here by Pacific Intermountain Express for removing carbon and other foreign material from truck engine blocks, pistons, valves and similar engine parts. P.I.E. is said to be the first company of its kind in the Rocky Mountain Empire to use this method.

Officials of P.I.E., one of the leading transcontinental motor freight carriers, reported Thursday that the new process reduces cleaning time of pistons alone from fourteen hours required by the old method to about one hour with the Vapor Blast unit.

REDUCES BREAK-IN TIME

A striking feature of the new method is that it does not leave cylinder walls, pistons and other metal surfaces with a high polish. Instead it creates a matte (dull satin) finish which the manufacturers claim has been proved superior to the once-esteemed mirror surface. Oil clings in the micropockets of the duller surface, reducing break-in time and giving lifetime anti-friction protection.

The new unit at the P.I.E. main terminal and principal repair shops here is made by Vapor Blast Manufacturing company of Milwaukee, represented in the Rocky Mountain area by Engineered Products, Inc., of Denver. The machine is automatic with its own pump, filters and rinsing equipment. In the rinse is a rust inhibitor called metrolux. Parts to be cleaned are put in a closed cabinet, and the operator works through spray-proof armholes to direct the blast of liquid abrasive.

COVERS FULL RANGE

The blast uses abrasives varying from very coarse (twenty mesh) down to 5,000 mesh, which is finer than milady's face powder. Metal parts treated vary from heavy Diesel engine blocks to fine instrument bearings. Jack Reising, Superintendent in charge of P.I.E. fleet repair operations, expects Vapor Blast to increase the present truck mileage between major overhauls, which already runs as high as 150,000 miles.

Complete information is available directly from the Vapor Blast Mfg. Co., 3109 West Atkinson, Milwaukee 16, Wisconsin.

Dollar for dollar, job for job, no dry blast method can equal Vapor Blast Liquid Honing

"VAPOR BLAST" and "LIQUID HONING" are trademarks.

VAPOR BLAST MFG. CO.

3109 West Atkinson • Milwaukee 16, Wisconsin

VAPOR V-B BLAST
MILWAUKEE, WISCONSIN

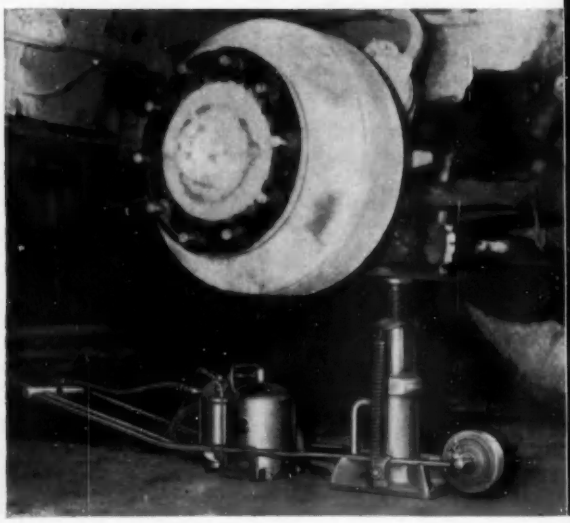
FLEET OPERATORS

Keep 'em rolling



CP Zip-Gun — ideal in body and repair shops. The versatile, air-powered Zip-Gun cuts, rips, shears, scrapes, punches, bumps and drives.

CP Air-Powered Pneu-draulic Pump and Jack — jacks up to 20-Tons at the flip of a finger. Pump also powers single acting hydraulic cylinders, presses and rams.

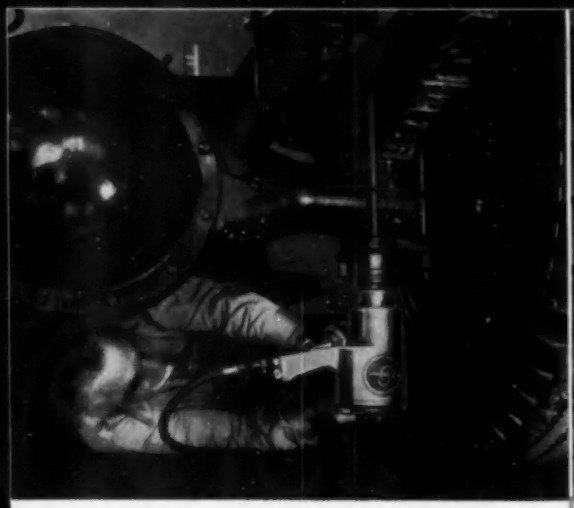


The longer a vehicle is "down" for repairs or maintenance the bigger the slice it takes out of a fleet operator's profit. That's why so many fleet service shops insist on using Chicago Pneumatic tools. CP Air-Wrenches, Zip-Guns, Pneu-draulic Jacks and Bead Breakers not only keep vehicles "on the move" but they bring substantial savings to fleet service shop operators. For information on the CP tool best suited to your specific requirements, phone your jobber or mail coupon to *Chicago Pneumatic Tool Company, 8 East 44th Street, New York 17, N. Y.*

Chicago Pneumatic

AIR AND ELECTRIC IMPACT WRENCHES • PNEU-DRAULIC TRUCK JACKS AND PUMPS • ZIP-GUNS • BEAD BREAKERS

AIR with CP Tools!



CP-770 (¾" drive) Air-Wrench with VARI-TORK Impact Clutch can't be beaten for the ease of handling and powerful impact so important in Spring U-Bolt work. Like all CP Air-Wrenches it is furnished with an *ATTACHABLE ANGLE HEAD.*



CP-790 (1" drive) Air-Wrench also has VARI-TORK Impact Clutch. Is specially designed for heavy-duty work . . . Wheel Nuts . . . Spring U-Bolts . . . Torsion Bar Springs . . . Axle Spacer Bars . . . Diesel Cylinder Heads . . . Main Bearings.

Also available: CP-740 and CP-750 (½" Drive) Air-Wrenches; CP-791 (1" Drive) with pistol grip and enclosed trigger. All CP Air-Wrenches have *Controllable Power* and can be supplied with *Attachable Angle Heads.*

Chicago Pneumatic Tool Company, Dept. A-
8 East 44th Street, New York 17, N. Y.

Send me FREE descriptive catalog. Please arrange a demonstration of:

☐ CP Air-Wrench ☐ CP Zip-Gun ☐ CP Pneu-draulic Jack

Name_____

Company_____

City_____ Zone____ State_____



A truck backs up to the loading dock of the Kroger warehouse in Cincinnati

Kroger, the nation's third largest food store

RAYON CORD



One of Kroger's most modern stores . . . near Cincinnati

There are more than 1,500 retail outlets in the Kroger system throughout the Midwest—19 states in all. Getting food and other grocery commodities from Kroger's 24 central warehouses to the individual stores is a major operation. Kroger does the job with trucks. As a result Kroger is almost as much in the trucking business as it is in the supermarket business.

Complete garages are maintained in each of Kroger's 24 central warehouses. There are a total of 2,733 trucking units throughout the company (1,631 trailers, 885 tractors, 217 trucks). They average 34,000,000 miles a year and are on the road 24 hours a day, six days a week. 99% are equipped with RAYON CORD TIRES. On route, the trucks meet all kinds of road and traffic conditions in the extremes of cold and heat found in the Midwest. Rayon Cord Tires take it all in stride. *In fact, Rayon has proved so dependable, that the great majority of Kroger trucks travel without spares!* This is testimony to Rayon's long lasting strength — vital in the





The tire man in the Cincinnati warehouse checks air pressure . . .



checks for proper matching . . .



checks inventory.

chain, proves

TIRES PAY OFF!

food business where you can't afford delays because of perishable goods.

Kroger finds Rayon Cord Tires last longer, provide more recaps and keep down-time-loss at a minimum. Last year 1,078 tires averaged 84,047 miles before recapping. Of these 1,069 wore out naturally. Only nine represented tire failure—*less than 1%!* Because of Kroger's strict rotation system, each recap gives more miles on the average than the original.

Thanks to Rayon's dependability and a complete tire-check program, Kroger can keep its spare tire inventory *below 30 days' supply*. Each garage employs a tire man who is entirely responsible for the maintenance of tires —air-check, matching, rotation, repair. He makes up a daily check sheet and turns it over to the garage superintendent. He makes sure every load is weighed before leaving, so that no trucks are overloaded.

In economy, service, dependability—that's how Rayon Cord Tires pay off for Kroger.

Truckers say that tires made of Rayon Cord are better for any and all kinds of trucking. Records show that more truckers use RAYON CORD TIRES than any other. They can rely on Rayon because Rayon pays off!

AMERICAN RAYON INSTITUTE, INC., 350 FIFTH AVENUE NEW YORK 1, N. Y.

AMERICAN RAYON INSTITUTE INC.

NEW!
SECTIONAL
ROLL-UP

TRUK-A-DOOR

DOORS CAN BE OPENED AND CLOSED AT THE DOCK

Eliminates hours now required to spot vehicles equipped with obsolete swing-type doors



10% increase in dock space by closer spotting

TRUK-A-DOOR improves customer relations. Increases efficiency of operation at pick-up and delivery time. Thousands are in use.

TRUK-A-DOOR COMPANY

2457 WOODWARD AVE. DETROIT 1, MICH. WO 1-8453





Oil control starts right now with this Chrome Set!

Now get both—long-life chrome plus oil control that starts right now.

Hastings Chrome-Vent oil rings with patented, beveled rails that seat 3 to 4 times faster than conventional chrome!

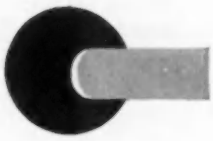
These new Hastings oil rings—now in every 2-C Chrome Set—are your best guarantee of quick, effective oil control. The exclusive beveled rails make fast, fineline contact with any cylinder wall—tapered, out-of-round or rebored. And because beveled design permits use of a lighter inner-spring, you get a gentle, soft-pressure contact every time.

Next ring job, install Hastings Chrome-Vents ... beveled to seat super-fast and give immediate oil control ... Motor Engineered by replacement specialists.

HASTINGS MANUFACTURING COMPANY, HASTINGS, MICHIGAN
HASTINGS LTD., TORONTO
Piston Rings, Casite, Wear Reducer, Oil Filters, Spark Plugs

CONVENTIONAL CHROME RAIL

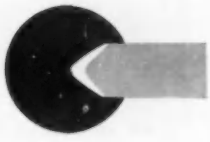
originated by Hastings ... now replaced by Hastings exclusive Beveled Chrome



Beveled Chrome-Vent

BEVELED CHROME RAIL

makes fineline contact with cylinder wall for a faster seat. Less area to wear-in means less time to break-in.

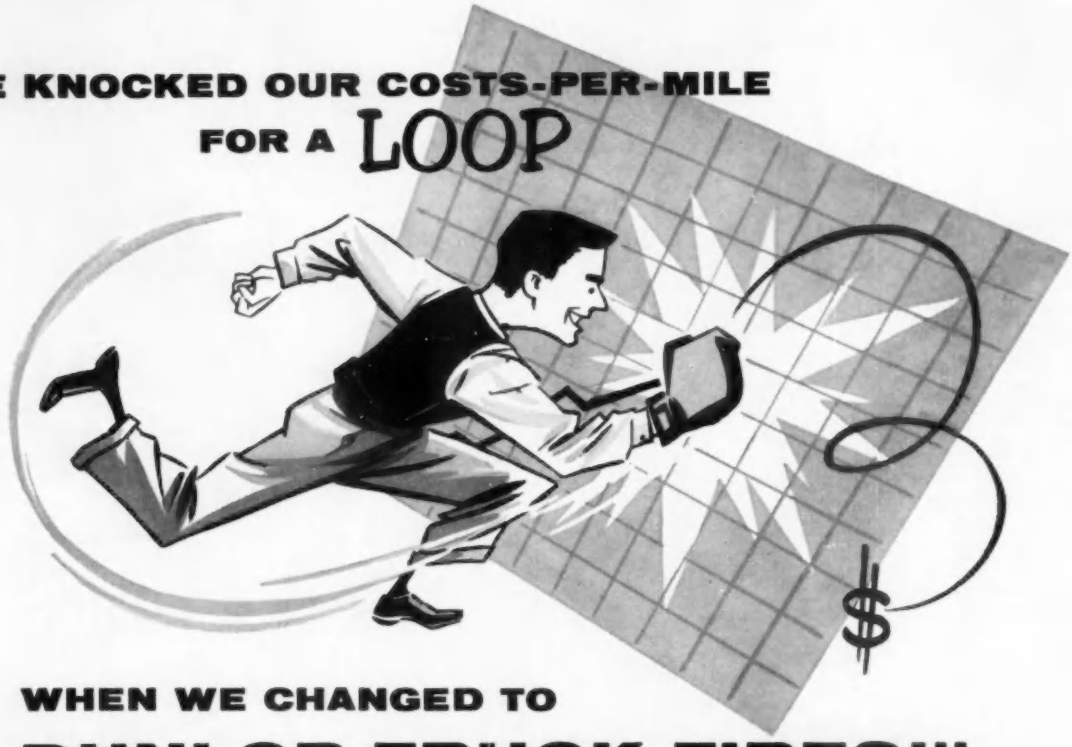


Tough on oil-pumping
Gentle on cylinder walls



HASTINGS
Beveled Chrome-Vent
Piston Rings

"WE KNOCKED OUR COSTS-PER-MILE FOR A LOOP



WHEN WE CHANGED TO DUNLOP TRUCK TIRES!"

Check the features and you'll see why Dunlop Super Gold Cup Truck Tires keep trucks rolling – reduce costly down time – give longer, more economical service.

Exclusive Dunlop Tension-Free construction eliminates uneven distribution of internal stresses, cuts internal temperatures 10° or more. Increases original tread mileage up to 34%.

Wider, flatter, huskier tread is another load distribution equalizer that means better performance, longer tire life.

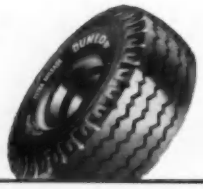
Full Nylon or High Tenacity Rayon construction eliminates growth problems, gives you maximum recap recovery.

If you buy "cost-per-mile," you'll do better with Dunlop Super Gold Cup Truck Tires.

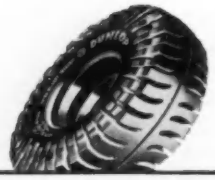
DUNLOP TIRE AND RUBBER CORPORATION
Factory and Executive Offices: Buffalo 5, N.Y.
DUNLOP – Founders of the Pneumatic Tire Industry



DUNLOP SUPER GOLD CUP HIGHWAY TRUCK TIRE
An all-wheel tire for all high-speed heavy load hauls.



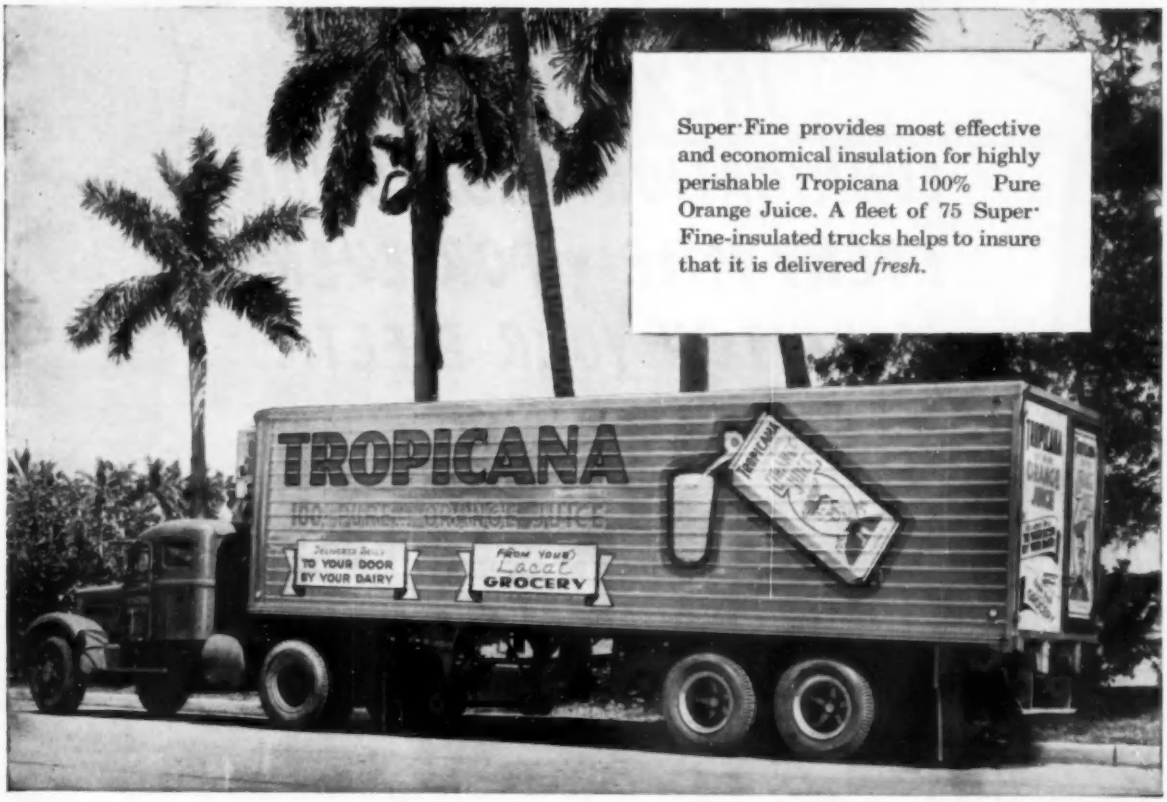
DUNLOP SUPER GOLD CUP EXTRA MILEAGE HIGHWAY TRUCK TIRE
A performance-plus tire for top-speed, top-load, long distance hauls . . . at lowest cost per mile.



DUNLOP SUPER GOLD CUP EXTRA MILEAGE TRAKGRIP TRUCK TIRE
A heavy duty tire for the roughest, toughest on-and-off the road service.

ENJOY
More Original Mileage- Greater Recap Recovery
with
DUNLOP TRUCK TIRES

INSULATION news from L·O·F GLASS FIBERS COMPANY



Super·Fine provides most effective and economical insulation for highly perishable Tropicana 100% Pure Orange Juice. A fleet of 75 Super·Fine-insulated trucks helps to insure that it is delivered *fresh*.

Fruit Industries, Inc., uses Super·Fine insulation to protect fresh Tropicana Orange Juice

Anthony T. Rossi, president of Fruit Industries, Inc., Bradenton, Fla., reports, "We use L·O·F Glass Fibers' Super·Fine to help maintain the carefully controlled temperature that Tropicana 100% Pure Orange Juice requires during long distance hauls. We have never had the slightest difficulty in keeping proper temperature in trailers insulated with Super·Fine."

Fruit Industries, Inc., found Super·Fine highly efficient and economical insulation. Super·Fine's remarkably effective combination of millions of trapped air cells and longer, finer glass fibers means high resiliency and resistance to vibration shakedown — provides always-dependable insulation without excessive thickness or weight. So you benefit from greater payloads—save again because it is so easy to install!

Write today for full information to: L·O·F Glass Fibers Company, Dept. 34-46, 1810 Madison Ave., Toledo 1, Ohio.



Super·Fine being installed in a Fruit Industries trailer. No special tools, skill or training are needed.

L·O·F GLASS FIBERS SUPER·FINE INSULATION

L·O·F GLASS FIBERS COMPANY

TOLEDO 1, OHIO

Makers of glass fibers by the exclusive "Electronic-Extrusion" process

INEXPENSIVE... LUBRICATION PROTECTION EVERY MILE • FOR EVERY UNIT IN YOUR FLEET...

WITH

VALVOLINE X-ALL

THE MULTI-PURPOSE LUBRICANT

The use of VALVOLINE X-ALL Grease means trouble-free lubrication for your fleet . . . and is suitable for all automotive grease applications.

VALVOLINE X-ALL is new, the direct result of nearly two years' scientific research . . . a tough, wear-resistant, water-repellent, non-toxic, adhesive grease with no melting point.

VALVOLINE LUBRICANTS

- H.D. SUPER HPO MOTOR OIL for services DG and MS
- PREMIUM MOTOR OIL for service MM
- VALVOMATIC TRANS-FLUID, TYPE A
- X-18 MULTI-PURPOSE GEAR LUBRICANT
- TRA GEAR LUBRICANT
- X-5 CHASSIS LUBRICANT
- UNIVERSAL JOINT LUBRICANT
- No. 5212 WHEEL BEARING LUBRICANT

Send Coupon for Complete Valvoline X-All Facts...

VALVOLINE OIL COMPANY
Div. of Ashland Oil & Refining Company
Dept. CCJ-2, Freedom, Pennsylvania

Please send me complete facts about Valvoline X-ALL Grease and how it can help our fleet operation save money.

Name.....Title.....
Firm Name.....
Address.....
City.....Zone.....State.....

VALVOLINE OIL COMPANY, FREEDOM, PENNSYLVANIA
Division of Ashland Oil and Refining Company



If it's worth a good serviceman's time . . .



. . . it's worth good lighting wire



Belden

PRIMARY WIRE

There is a long-life Belden Wire for every car, truck, bus or tractor requirement. Belden Kits and combinations make installation easy.



Belden
WIREMAKER FOR INDUSTRY
SINCE 1902
CHICAGO

6—7







Battery Cables • Spark Plug Wires • Lighting Wires

Now Perfect Balance on Heavy Equipment at Top RPMs



Racing car owners have long relied upon Standard to provide perfectly balanced assemblies of crankshafts, pistons, connecting rods, and flywheels. Now our enlarged plant and new equipment permit us to offer the same service to heavy truck, bus, and tractor unit owners — to provide far better performance and longer service.

Standard's equipment includes ultra-sensitive Dynamic Balancers and "Shadowgraph" Scales *which will record the weight of one-half a cigarette paper.*

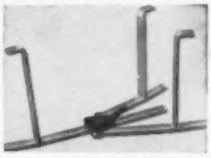
Standard's Balancing Service is worth many times its cost. We will be glad to give you full information.

Standard Crankshaft and Hydraulic Co., Inc.

117 Southside Drive, Charlotte, N. C., Phone EDison 3-5122

Brand Name and Numeral Identification on Your Tires

NEW



EVERHOT SAFETY CLAMP

• **ELIMINATES DANGER of exploding lock rings during inflation.**

Don't risk the expense and serious injury which can be caused by an exploding lock ring. Positive 3-point grip of the Everhot Safety Clamp (applied to tire in five seconds) assures complete protection. Equally satisfactory for any style rim. Get full details today and special low introductory price. Jobber inquiries invited.

Increase tire mileage up to 40% by keeping accurate tire mileage records.



Accurate tire mileage records, possible only through branded identification give you the complete story on every tire in your fleet . . . tell you where valuable savings can be made. Consider branding today. Get full details by writing for free sample set of tire mileage record forms and prices on tire branders.

EVERHOT MANUFACTURING COMPANY, MAYWOOD, ILLINOIS

April News Roundup

Continued from Page 294

required to obtain clearance certificates at ports of entry (H129).

Georgia—Intrastate passenger common carriers are required to provide separate waiting rooms for separation of races and persons traveling intrastate are required to use rooms marked (H267, H268). Sale of non-approved brake fluid is forbidden (S46).

Illinois—City of Chicago has imposed a 5 per cent gross receipts tax on utilities.

Kansas—Permits for excess size and weight may be applied for by telephone and telegram may be used as permit at $2.00 permit fee (H11).

Kentucky — Non-resident carriers may file quarterly instead of monthly reports in connection with gasoline use (H479). State Police are authorized to make mechanical inspection of vehicles when they believe such vehicles are not equipped as required (H208).

Maryland — Registration fee increases enacted in 1953 have been postponed until 1957 (S49). For-hire passenger transport insurance must conform to certain state laws (S17).

Mississippi—Commercial driver license fee is increased to $3.50 per year and such licenses may be issued for two-year periods (S1545). Basic vehicle registration fee is increased to $2 (S1584). Passenger intrastate common carriers operating waiting rooms must provide separate toilet facilities for races traveling intrastate (H12).

Nevada—Special stop is required when school bus exhibits flashing red light signals (H7X).

New York—Public Service Commission may suspend certificate if omnibus corporation fails to file and maintain proof of financial responsibility (S823).

(TURN TO PAGE 372, PLEASE)

ATTENTION

PARTS PURCHASING

MASTER MECHANIC

Diesel injectors reconditioned by experts who service a large percentage of all injectors of large trucking firms. Service available on high valve injectors and plungers and bushings also.

Write for Catalogue

HANCOCK

DIESEL SERVICE CO.

325 Walnut St. Findlay, Ohio



So Sensational that it can be

GUARANTEED TO GIVE

10% LOWER COST PER MILE!

SEIBERLING
TRACTION LUG HIGHWAY TIRE

Introduced to the trucking industry last May, this new Seiberling tire had *proved in trucking service* to be so far ahead of other tires in delivering mileage that it can be *guaranteed to give you at least 10% lower cost per mile than any other tire you are using.* See your Seiberling Dealer and arrange for *proof on your equipment.*

HERE ARE SOME OF THE MILEAGE RECORDS THIS TIRE HAS BROKEN—

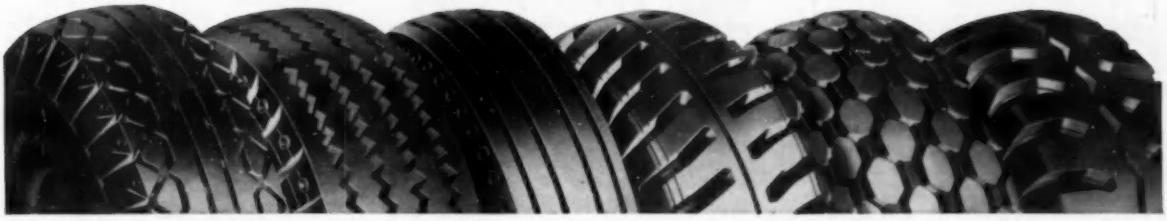
- 72,000 more miles than a competing highway tire!
- 31,000 more miles than a competing heavy tread tire!
- 38,000 more miles than a competing lug tire!
- 103,000 miles on drive wheels in mountainous country runs—and still had 5/32" of tread remaining when put on trailer wheels!

HERE IS WHY THE TRACTION LUG HIGHWAY CAN OUTRUN ANY OTHER TRUCK TIRE—

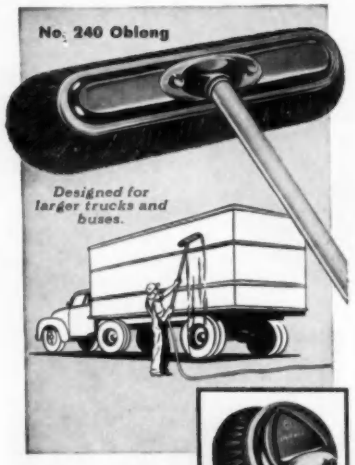
- Heavy tread—one of the heaviest on the road. 30% more tread volume.
- Flattest tread of any lug-type tire—more wearing surface.
- Shorter, sturdier lugs resist "heel and toe" wear—give more even wear.
- All nylon — with Thermoweld cushioning and breaker assembly.
- One of the few full squeegee construction tires built.
- Tread center grooved and triple siped.

LET US ENGINEER YOUR TIRE PROBLEMS — IT'S A FREE SEIBERLING SERVICE

WRITE: L. M. SEIBERLING, Vice-President in Charge of Sales, Seiberling Rubber Company, Akron 9, Ohio



SPEED WASH
Outlasts 3 Ordinary Fountain Brushes





No. 250 Round
Ideal for small trucks, passenger cars.

NOT even three ordinary fountain brushes can match the long lasting performance that results from the superior construction and design of Speed Wash. Soft, resilient bristles (50% Nylon, 50% Select Horsehair) can't mat or tangle. Tufts are molded into block, can not come out or come loose. Steel back is waterproof and surrounded by a mar-proof bumper. Handle is zinc plated inside and out. Features like these make Speed Wash the quality brush of the trucking industry, preferred by thousands of the nation's biggest fleet operators. You'll like Speed Wash, too. Order yours today.

Complete with 5 ft. handle	PRICES EITHER STYLE IN LOTS OF: 1	6	12	24
	$12.45	$11.65	$10.90	$10.15

MILWAUKEE DUSTLESS BRUSH CO.
530 North 22nd St., Milwaukee, Wis.

Please ship the following:

Quan.	No.	Item	Price
	240	OBLONG SPEEDWASH	
	250	ROUND SPEEDWASH	

NAME_____

ADDRESS_____

CITY_____ STATE_____

April News Roundup

Continued from Page 370

Pennsylvania—Tractor semi-trailer combination length limit is increased to 50 ft and semi-trailers used to transport automobiles may exceed 35-ft single unit length limit by 30 in. (S866). Trucks, trailers, semi-trailers, parts, accessories and equipment are included in the state's new 3 per cent sales tax. Operation of vehicles with mufflers from which internal parts have been removed is prohibited (S773).

South Carolina—Trucks with more than 2 axles, buses and truck-tractors powered by gasoline and all vehicles powered by other fuels are required to register annually with State Highway Dept. and make quarterly reports together with payment of 7¢ per gal tax on all fuel used in the state less credit for fuel purchased in state on which tax was paid (H1897). Trucks and combinations are required to maintain 100 yd or more spacing between vehicles when traveling on highways (H1901).

Virginia—New law affects buses operated in special or charter service by certain carriers (H304). Cities and towns are authorized to remove, impound, store and sell vehicles or trailers abandoned on public streets or grounds when there appears to be a traffic hazard or inconvenience to citizens (H235). Red flag for display when vehicle is disabled must be at least 12 in. square (H167). Certain counties are not required to hold a referendum prior to imposition of local motor vehicle taxes (H73). Maximum gross weight laws have been clarified (S167). Lessors of trucks or tractors are required to comply with certain contract carrier requirements and only lessee may operate leased vehicles (H277). Maximum personal injury or death liability insurance required of motor carriers shall be $25/50,000 (H283).

(TURN TO PAGE 374, PLEASE)

more payload with *Lintern*

LIGHTER WEIGHT
STEP, SADDLE, & CYLINDER TANKS

LARCO, inc. DISTRIBUTORS OF LINTERN CORPORATION PRODUCTS
ROUTE 20, EAST • PAINESVILLE, OHIO

TRUCK MECHANICS - OWNERS

Set Valve Clearance *Exactly Right!*
Every Time with

P&G Valve-Gapper



New Technique 100% Accurate

Now you can set valve clearance on most OHV gasoline and diesel truck engines uniformly and with micrometer accuracy instead of depending upon individual "feel".

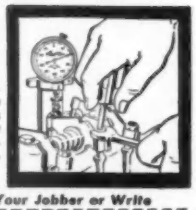
Check these VALVE-GAPPER advantages:

- Reduces Valve Adjustment time as much as 50%.
- Eliminate Inaccuracies of Individual "Feel".
- No Change in Adjustment Procedure; ONLY Method of Measurement Differs.
- Serviceman can "SEE" Clearance on Dial Indicator BEFORE, DURING and AFTER adjustment.
- Both Hands FREE to Use Adjusting Tools.
- Use Dial Indicator for Other Shop Tasks.

Models Available to fit these Truck Engines:
GM DIESEL • GMC GASOLINE
CUMMINS DIESEL
INTERNATIONAL HARVESTER
FORD • CHEVROLET
DODGE • REO • OTHERS

BOTH HANDS FREE

Service man always has both hands free to use adjusting tools —he can "see" exact clearance before, during and after adjustment.



Order From Your Jobber or Write

P&G MANUFACTURING CO., Dept. 4-C
305 N. E. Russell St., Portland 12, Oregon
Please send me Valve-Gapper literature and prices.

Firm Name_____

Your Name_____

Address_____

City_____ Zone____ State_____

Engines Serviced:
☐ Passenger Car ☐ Diesel
☐ Gas Truck ☐ Gas Industrial

My Jobber is:_____

HENDRICKSON TANDEM



SERIES RS TANDEM

THE COMPLETE LINE OF TANDEM SUSPENSIONS FOR TRUCKS, TRAILERS AND SPECIAL EQUIPMENT.
22,000 LBS. TO 150,000 LBS. CAPACITY FOR DUAL DRIVE, TRAILING AXLES, AND PUSHER-TYPE

HENDRICKSON Mfg. Co.

Additional details and descriptive literature available on request.

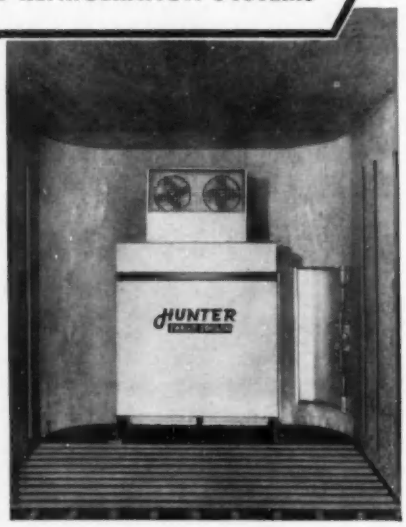
HENDRICKSON MFG. CO. • 8001 W. 47TH STREET • LYONS (CHICAGO SUBURB) ILLINOIS

New HUNTER CARGO COOLER

CONTROLLED DRY ICE REFRIGERATION SYSTEMS

LIGHT-WEIGHT, LOW-COST, *DEPENDABLE* REFRIGERATION

- Bigger payloads — weighs only 375 lbs. — compact, 19 in. x 48 in. x 75 in.
- Low cost — less initial investment — low operating costs.
- Minimum maintenance — greatly reduces upkeep and repair costs.
- Quick turn-arounds — no down-time for servicing — quickly re-iced.
- Makes total road failure of refrigeration an impossibility.
- Complete thermostatic control — temperatures from 0° to 60°.
- 3 Models — 600 lbs. and 1050 lbs. dry ice capacity — also combination heater-refrigeration unit.



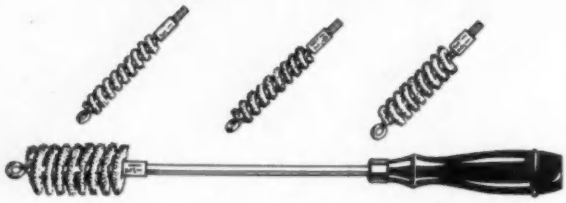
Write for descriptive literature, specifications, prices.

HUNTER MANUFACTURING CO.

30525 AURORA ROAD, SOLON, OHIO

SPECIAL WIRE BRUSHES? THEY'RE STANDARD AT RIMAC!

VALVE GUIDE BRUSHES FOR INSTANCE —



Comfortable handle, solid steel shank, interchangeable brush of just the right stiffness of steel wire to remove all carbon, hard or soft. A few strokes up and down, and it's done.

For other special cleaning jobs there's a "Rimac-right" brush: Hand, wheel, rotary, in cable twist, spiral or straight strands.

RINCK-McILWAINE, INC.

16 HUDSON STREET • NEW YORK, N. Y.

B U Y B O N D S

April News Roundup

Continued from Page 372



Western Canadian Greyhound Lines won the Greyhound National Safety Contest for 1955 in competition with **Greyhound Corp.'s** 13 divisions. Greyhound Corp. reports a 19.8 per cent improvement in accident-free mileage throughout its entire system for 1955 as compared to 1954.

Fleets awarding their outstanding safe drivers recently include:

Brentwood Motor Coach, Pittsburgh, Pa.—to 24 drivers. Total record is 63 years of safe bus driving with one driver in the 13-year class.

Bekins Van & Storage Co., San Diego, Cal.—to 20 drivers. Total record is 70 years of safe truck driving.



Greyhound Corp., Chicago, has set-up a subsidiary, **Greyhound Rent-A-Car,** plans to enter the truck and automobile rental field. Operations start in Chicago, New York City and Detroit on June 1, plans to expand to other cities later in the year.

Needham's Motor Service, Philadelphia, has added additional Mack tractors and Strick high cube reefer trailers to its fleet.

New York City Transit Authority, New York City, begins receiving 318

(TURN TO PAGE 377, PLEASE)

W. G. B. makes OIL FILTERS

from 60 to 750 Cu. In. Capacity

...and Cartridges for all makes of Filters.



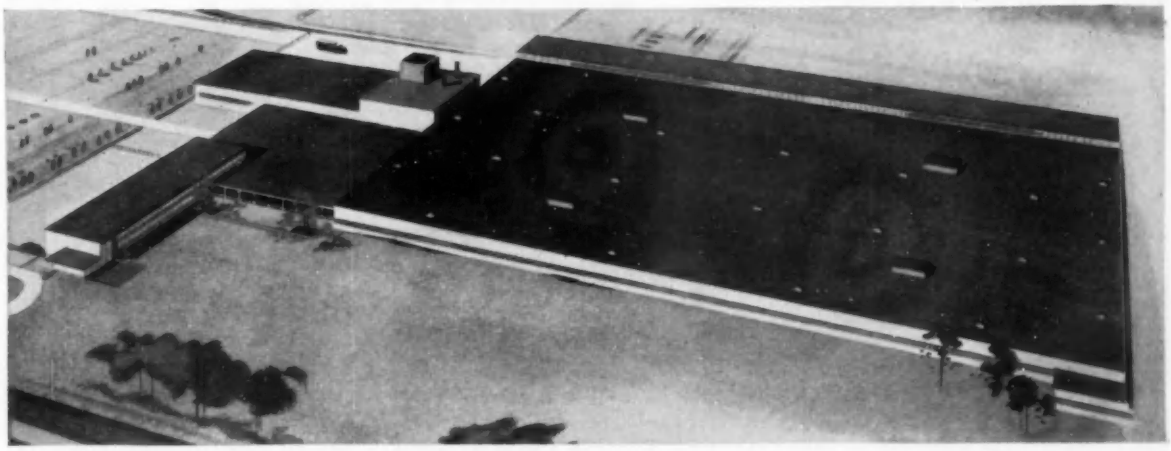
Write for Details

W. G. B. OIL CLARIFIER, INC.

First By Test Since 1931 KINGSTON, N. Y.

Coming soon...

A new and modern automotive parts manufacturing facility



In a few months Thompson will begin operations in a new, modern parts manufacturing facility now nearing completion in the Detroit area. This new plant will employ the latest methods and equipment available to provide low cost, efficient manufacture of chassis parts.

Chassis design improvement has become an increasingly important factor in the automotive industry's future planning. This, plus the tremendous acceptance of Thompson steering linkage and other chassis parts has made Thompson's latest expansion necessary.

Finer steering linkage and suspension parts, new and advanced manufacturing techniques, better customer service—these are but some of the advantages Thompson will offer when its new Detroit plant begins operations.

Have *your* engineers call on Thompson to help develop your steering linkage and suspension. Write, wire or phone Thompson Products, Michigan Division, 7881 Conant Ave., Detroit 11, Michigan, WAlnut 1-5010.

You can count on Thompson Products

Michigan Division: Detroit • Fruitport • Portland

HOW THOMPSON STEERING-LINKAGE PARTS ARE "TORTURE-TESTED":



Double-Tested—week after week, 24 hours a day, extra-severe punishment is dealt out to Thompson's experimental and standard steering linkages, suspension ball joints, and other chassis parts.



In Addition—these parts undergo further tests in standard-model cars out on the open road . . . not only on average highways, but also on rutty, muddy and snowbound back roads.

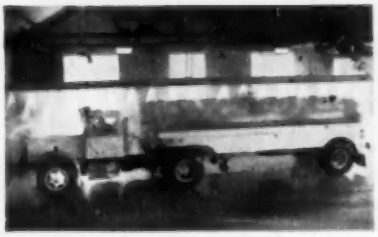


Results?—These "torture tests", followed by skilled analyses by experienced Thompson engineers, result in the finest possible linkage and suspension systems for cars, buses, trucks, tractors.

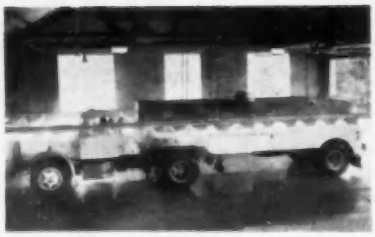
automatic operation . . . for servicing fleets . . . 5 sizes

RUGGED CHOLDUN TRUCKWASHER

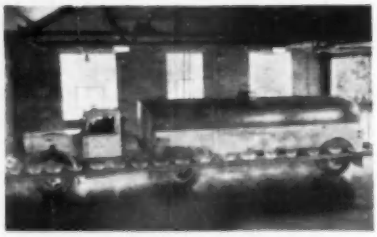




PUSH-BUTTON OPERATION starts Spray Elevator downward for both water and shampoo cycles. Does a complete job of (a) cooling-and-wetting down (b) shampooing and (c) rinsing. Cuts truck washing time and work by as much as 80% . . . "Purple Magic" shampoo washes and leaves a wax-like sheen.



AS IT DESCENDS, Spray Elevator actually deluges vehicle with spray. Double pump delivers up to 40 gallons per minute. Separate nozzles for water and shampoo on Spray Elevator are spaced so that top, front, sides and rear of vehicle are thoroughly wetted. Spray Elevator constructed of tempered, extruded aluminum — built rugged for long, continuous service.



CONTINUES TO SPRAY until it returns to overhead position and automatically shuts off. Overhead installation means NO TRACKS ON FLOOR. Spray Elevator comes in five lengths: 30′, 35′, 40′, 45′ and 48′ (inside dimensions). Other sizes can be made upon application. Two lift mechanisms insure smooth performance at all times . . . 5 H.P. Motor, 3 phase, 208-220 V., A.C., 60 cycle.

Commercial Credit Plan

Through this Plan, you can own a Choldun Truckwasher for only $57.46* a month . . . $2 a day . . . purchased through your Local Automotive Jobber.

COMMERCIAL CREDIT PLAN

Don't put off buying just because you don't want to lay out the cash. Remember—the best equipped shops save money.

*based on 30-ft. unit, $198 down and 36 monthly payments.

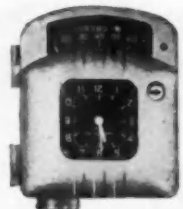


TRUCK WASH SHAMPOO

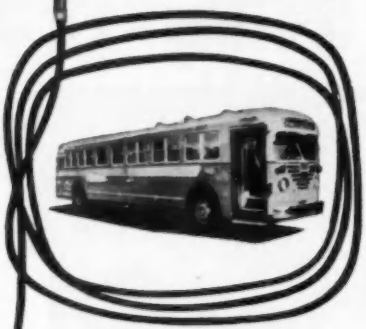
CHOLDUN Mfg. Corp.
331 East Street, New Haven, Conn.

☐ Please send descriptive catalog on the automatic Choldun TRUCKWASHER and details on COMMERCIAL CREDIT PLAN.

Name_____
Company_____
Street_____
City & State_____



230,000 maintenance-free miles!



DE CAMP BUS LINES breaks all records with TELEFLEX® Tachograph linkage

More than 230,000 rugged tachograph miles have been logged by a 45-foot, one-piece Teleflex Tachograph cable on a bus belonging to De Camp Bus Lines, Clifton, New Jersey. Together with four other buses from the fleet, De Camp has experienced more than a million miles from its Teleflex Tachograph Linkages—without cable failure, repair, lubrication, or other maintenance. And *all* are still going strong!

You can have the same results—for truck fleet, or bus fleet operations. Teleflex is a high-strength cable uniquely designed to tackle successfully the problem of downtime due to cable failure. Operating in its own precision-made flexible or rigid and flexible conduit, Teleflex gives you the service you expect from your Tachographs. When they're Teleflex equipped—your Tachographs are *always* on the job, making fleet operations more economical, safer, and more efficient.

REMEMBER! Your next Tachograph cable replacement can be the last—if you replace with Teleflex!

FOR DETAILS OF TELEFLEX TACHOGRAPH INSTALLATIONS—

WRITE for the Tachograph linkage bulletin; Teleflex Incorporated, 125 S. Main Street, North Wales 2, Pa.

TELEFLEX

MECHANICAL CONTROLS

LINKAGES MECHANISMS

April News Roundup

Continued from Page 374

Mack buses within four months. The new units will be diesel-powered and have airglide suspension.

Mid-States Freight Lines, Chicago, has purchased 50 White Model No. 9000TD tractors with 175-hp Cummins Model No. JT6B turbocharged diesel engines.

McLean Trucking Co., Winston-Salem, N. C., has ordered 50 GMC Model No. DF662-47 COE sleeper cab tractors with GM's 4-71 diesel engine to add to its over-the-road fleet and 34 Model No. F372 tractors with 270-cu in. gasoline engines for PU&D service.



Hall-Scott Motors Co., Berkeley, Cal., has opened factory branches in Houston, Texas, and Philadelphia. Philadelphia branch will service ACF buses in addition to Hall-Scott engines.

Fruehauf Trailer Co., Detroit, has announced plans to build a new 200,000 sq ft plant for its recently acquired **Strick** division. The new facility will be built some time this year in Philadelphia.

Black & Decker Mfg. Co., Towson, Md., has opened a new sales and service branch in Columbus, Ohio.

Control Cells Corp., Boulder, Colo., maker of electronic weighing equipment, has been purchased by **Ball Brothers Co., Muncie, Ind.** The company will continue to operate in Boulder as a division of Ball Brothers.

(TURN TO PAGE 379, PLEASE)

Our customers want the best!





"THIS LUBRICANT DOUBLES THE LIFE OF GEARS"

—says TRINITY ALPS LUMBER CO. Hayfork, California

"Our trucks have a forty mile county road logging haul over adverse grades, each truck making two complete round trips each working day. Our shop foreman in charge of maintenance, reports that with the use of LUBRIPLATE Lubricants there has been a minimum of truck down time and replacements of bearings and gears. The double reduction gears with LUBRIPLATE APG-140 has shown a saving of fifty per cent over previous operations."

REGARDLESS OF THE SIZE AND TYPE OF YOUR MACHINERY, LUBRIPLATE LUBRICANTS WILL IMPROVE ITS OPERATION AND REDUCE MAINTENANCE

LUBRIPLATE LUBRICATION MAKES CARS AND TRUCKS RUN BETTER AND LAST LONGER



LUBRIPLATE H.D.S. MOTOR OIL . . . THE OIL THAT NEEDS NO ADDITIVES

For nearest LUBRIPLATE distributor see Classified Telephone Directory. Send for free "LUBRIPLATE DATA BOOK" . . . a valuable treatise on lubrication. Write LUBRIPLATE DIVISION, Fiske Brothers Refining Co., Newark 5, N. J. or Toledo 5, Ohio.



THERMO KING

introduces its new model "H"

HYDRAULIC-DRIVE UNITS

Thermo King's new Model "H" units for insulated truck bodies are specially designed to operate from power supplied by your truck engine.

This new hydraulic driven truck refrigeration system is simple in design and in operation, making the new Model "H" almost maintenance-free.

New Hydra-Drive units are made in two styles —straight hydraulic drive and a combination hydraulic and standby electric motor drive.

"H" Models are available for all size straight truck bodies and for all temperature requirements.

Here are some of the important features of Thermo King's new Model "H":

- **LIGHTWEIGHT—as low as 455 pounds; durable and lightweight frame, built for rugged road service**
- **Patented SINGLE-PACKAGE construction—The unit is easily installed and if ever necessary, easily removed without disturbing the cargo**
- **Available with AUTOMATIC DEFROST**
- **AUTOMATIC TEMPERATURE CONTROL—Set your temperature, snap a switch, Model "H" keeps your load at the constant desired temperature**



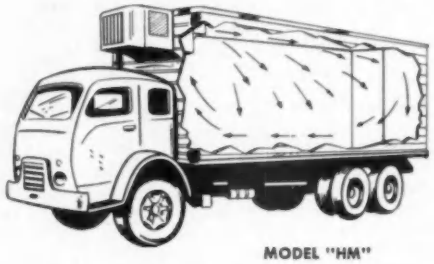
MODEL "HA"

OPERATION OF NEW MODEL "H"

The spare horsepower developed by your truck engine operates the Thermo King hydraulic pump. This pump is either belt-driven by the crankshaft or driven through power take-off. This specially designed precision Thermo King pump powers the hydraulic motor, which in turn drives the compressor.

This hydraulic motor operates at a constant speed whether your truck engine is idling or fully accelerated. Thus, there is no variation in the refrigeration capacity of the unit.





MODEL "HM"

Refrigeration with new Model "H" as shown in the sketch above by "forced convection" cooling. The air in the truck is drawn through the cooling coil where the heat is removed. The cool air is then blown back into the truck body and over the cargo. The air moves downward, under and around the lading, and again flows through the cooling coil. Model "H" is another important advancement in transportation refrigeration by THERMO KING!

Please send me complete specifications on the new THERMO KING Model "H". CCJ

Name_____

Company_____

Address_____

City_____ State_____

Mail to:

THERMO KING

44 SOUTH 12th STREET

MINNEAPOLIS, MINN.

West Coast Branch: 2011 E. 65th Street, Los Angeles, California

CLOYES MATCHED SETS

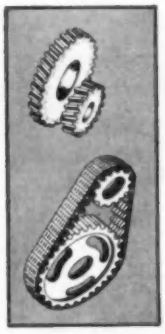
will give your truck motors

MORE PULL

Cloyes Timing Gears are held to close tolerances and good finish. They are shaved and matched at the factory, packed in pairs and delivered to you properly matched. They need no "break-in" period . . . can extend the life and performance of your motors.

Gear specialists since 1921

HEADQUARTERS FOR



- TIMING GEARS
- CHAINS
- SPROCKETS

for ALL trucks, buses, passenger cars and industrial motors

CLOYES GEAR WORKS

Gear Specialists since 1921

17214 ROSELAND RD., Cleveland 12, Ohio

April News Roundup

Continued from Page 377





. . . **John A. Campbell,** left, promoted to maintenance director, and **J. P. Boyd,** promoted to assistant maintenance director, McLean Trucking, Winston-Salem, N. C.



. . . **H. Charles Simons,** promoted to sales manager, Heater Division, Eaton Mfg. Co., Cleveland, Ohio.

. . . **Henry A. Nichols,** promoted to midwestern regional manager, AP Parts Corp., Toledo, Ohio.



. . . **B. R. Tabbert,** left, promoted to assistant automotive sales manager, and **H. W. Noble,** right, promoted to truck sales department manager, Holley Carburetor Co., VanDyke, Mich.

(TURN TO NEXT PAGE, PLEASE)

MOTOR TRUCKS
CRANE CARRIERS
CUSTOM BUILT CHASSIS
GENERATOR SETS

WARNER & SWASEY CO.

DUPLEX

DIVISION
LANSING, MICHIGAN

it's what's inside that counts



THE EFFICIENCY OF Luber-finer PATENTED PROCESS PACK HAS NEVER BEEN EQUALLED

STANDARD of the INDUSTRY SINCE 1936

DON'T BE MISLED BY PRICE ALONE!

There is no substitute for DIESELPAK'S Patented Filtering Process for H.D. Compounded oils AT ANY PRICE. The DIESELPAK cleans more oil faster—keeps it CLEAN longer—and gives more service and better engineered protection than any other filtering element. It PAYS to get the BEST!

√ Protects engine

The DIESELPAK is designed to remove not only ABRASIVES but also CONTAMINANTS such as moisture, carbon, acid, etc., from oil, and is engineered to keep the filtering media and the removed contaminants from migrating back into engine.

√ Extends periods between drains

The DIESELPAK collects and holds even the most finely dispersed contaminants without affecting or removing compound additives from the oil. A glance at the dip stick will show that the oil is CLEANER—symbol of better lubrication and longer oil life enjoyed only by Luber-finer users.

√ Takes less oil

The DIESELPAK because of its engineered construction requires 2 to 4 quarts less oil than spongy substitute filter elements being offered for use in the Luber-finer housing. This is an additional saving enjoyed when using the DIESELPAK.

LUBER-FINER PACKS AVAILABLE:

1. *REFINING PACK*—Introduced to the public in 1935 for use with straight mineral oils, fuel oils, hydraulic oils, and inhibited industrial oils.

2. *DIESELPAK*—First made available in 1941, the DIESELPAK was primarily designed for use with H. D. detergent compounded oils and has also achieved outstanding results when used with fuel oils and straight mineral oils.

Write for complete information to Dept. 14



INDUSTRIAL HOSE AND FITTINGS

Super resistance to abrasion and corrosion makes this hose excellent for railroads, road equipment, farm machinery, and materials handling equipment. High tensile strength single wire braid. Tough synthetic rubber cover. Working pressures to 2500 psi. Bulk hose and fittings . . . complete hose assemblies at your dealer.

Write for BULLETIN
Dealerships open in some areas.

STRATOFLEX

STRATOFLEX, INC. FORT WORTH, TEXAS
P. O. BOX 10398

BRANCH PLANTS
LOS ANGELES AND TORONTO
SALES OFFICES
ATLANTA • CHICAGO • NEW YORK • SAN FRANCISCO
DAYTON • HOUSTON • KANSAS CITY • PORTLAND • TULSA
IN CANADA
STRATOFLEX OF CANADA, INC. TORONTO 18, ONTARIO

April News Roundup

Continued from Page 379

. . . **Howard Freeman,** promoted to branch manager, Charleston, W. Va., Mack Trucks, Inc., New York City.



. . . **Richard H. McMahon,** fleet sales manager, Willys Motors, Inc., Toledo, Ohio.



. . . **Frank H. Grinnell,** division manager, motor transport department, Liberty Mutual Insurance Co., Boston, Mass.

. . . **H. H. Swain,** appointed general sales manager, Grizzly Mfg. Division, Maremont Automotive Products, Inc., Paulding, Ohio.

END

Please Resume Reading Page 166

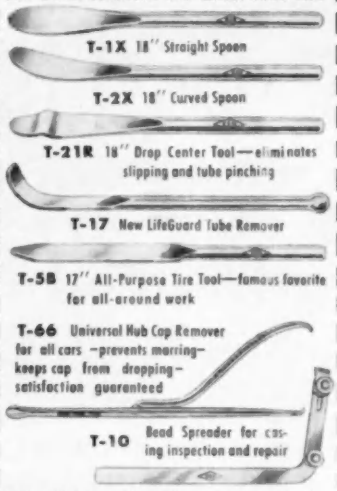
Classified Advertisement

TRUCK DECALS—unusually low-priced, printed in plastic colors to give more brilliance, longer life. No charge for sketch in color. Representatives wanted—write for samples. Allied Decals, Inc., 8420 Hough Avenue, Cleveland 3, Ohio.

FRINK SNO-PLOWS
REG. U.S. PAT. OFF.
Both "V" TYPE and ONE WAY BLADE TYPE
hand or power hydraulic control
FOR ALL MOTOR TRUCKS FROM 1½ to 10 TONS
FRINK SNO-PLOWS, INC., CLAYTON, 1000 Isl., N.Y.
FRINK SNO-PLOWS OF CAN. Ltd., TORONTO, ONT.

There are now 120 *Water Pumps in our line*
Wohlert Corporation
LANSING 5 MICHIGAN

TOPS FOR TIRES
JOB-DESIGNED KEN-TOOLS
HAND-FORGED FROM CHROME NICKEL ALLOY STEEL
FOR EXTRA STRENGTH AND EXTRA LONG LIFE



SEE YOUR JOBBER on the complete line of *Job-Designed* Ken-Tools. Forged by the largest exclusive manufacturer of top-quality Tire-changing Tools and Equipment. THE KEN-TOOL MFG. CO., AKRON 5, OHIO.

JOB-DESIGNED KEN-TOOLS
TIRE CHANGING TOOLS KNOWN, USED AROUND THE WORLD

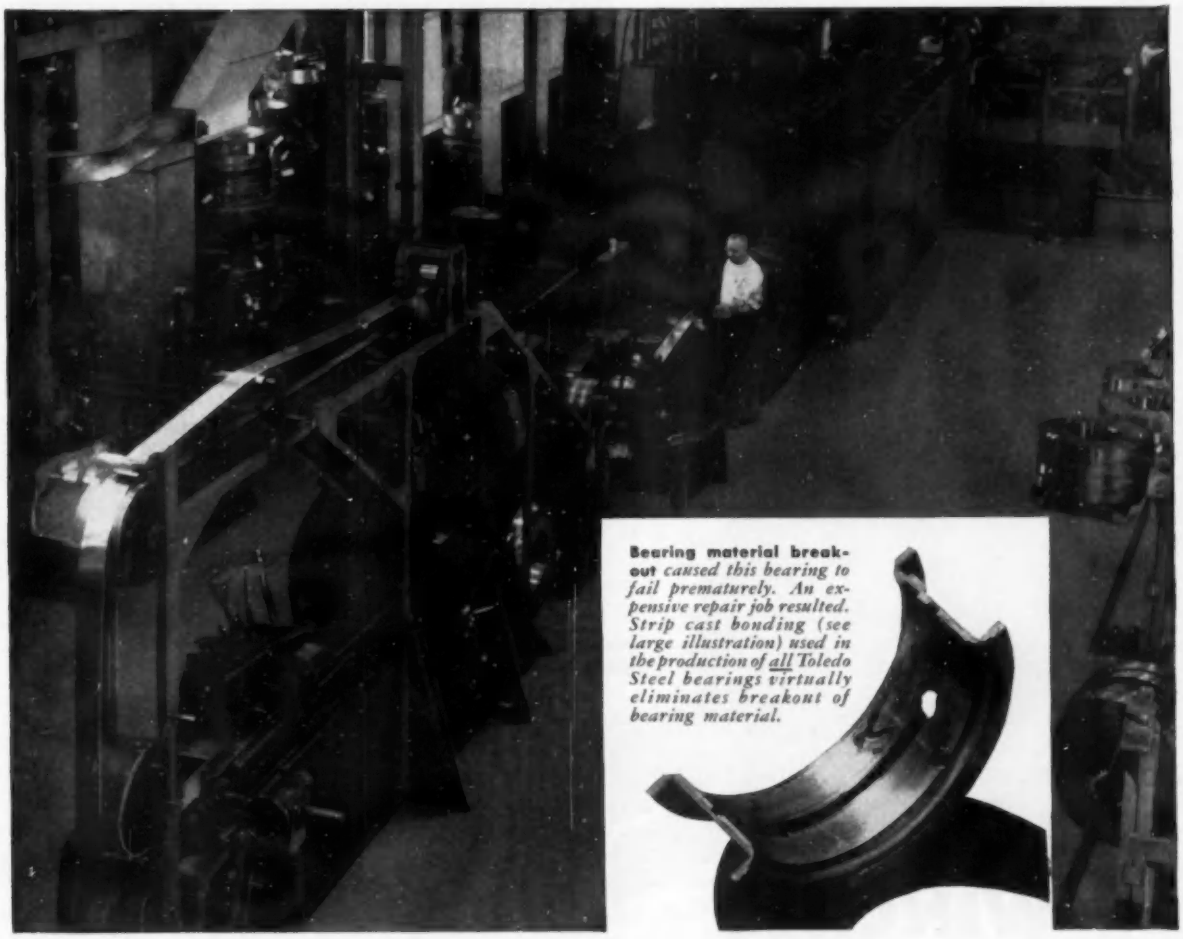
"BOS" HYDRAULIC TRUCK TIRE DEMOUNTER



$89.50
Higher West of Rockies

removes, safely and easily, frozen or stuck casings from rim in minutes. Features Hein-Werner Hydraulic unit. Handles all size truck tires, wheels and rims.

MAIL ORDERS OR REQUESTS FOR FURTHER DETAILS TO
JACK P. HENNESSY SALES CO.
12 DEPOT SQUARE • ENGLEWOOD, N.J.



Bearing material breakout *caused this bearing to fail prematurely. An expensive repair job resulted. Strip cast bonding (see large illustration) used in the production of all Toledo Steel bearings virtually eliminates breakout of bearing material.*

STRIP CASTING OF TOLEDO STEEL BEARINGS VIRTUALLY ELIMINATES BEARING MATERIAL BREAKOUT

Superior bonding method chemically welds bearing materials to steel back

• The patented strip casting method used to bond bearing materials to steel backs in Toledo Steel bearings gives them greater fatigue strength and load carrying capacity. Bond breakdown—a prevalent cause of failure in conventional heavy duty bearings—is virtually eliminated.



FOR LONGER BEARING LIFE AND FINER ENGINE PERFORMANCE, INSTALL TOLEDO STEEL CL-77 OR MICRO BEARINGS

TOLEDO STEEL PRODUCTS

6402 CEDAR AVENUE • CLEVELAND 3, OHIO

Division of Thompson Products, Inc.

ENCLOSED CLUTCH CAN'T STICK OR FREEZE *Ever!*



WINCHES

Put an advanced Gar Wood 7000 lb. winch on your utility truck and you'll put an end to clutch trouble. All moving clutch parts are *fully enclosed and running in oil* . . . can't stick, freeze or rust because weather and dirt can't get in!

You'll put an end to the hazard of sudden slippage, too. Gar Wood's self-energizing safety brake and time-tested back-draft clutch give your operator much safer control of the load.

And that's not all! Gar Wood winches feature stress-free, tempered aluminum alloy housings that are light-weight, rustproof, built for longer life . . . built-in rope clamp for easier attaching and changing of rope, better spooling . . . self-contained ball-bearing mounted worm shaft for smoother operation . . . extra rugged base angles for an extra margin of safety.

Get all the facts about Gar Wood 7000 lb. winches, available as standard or low mount. Call your Gar Wood-St. Paul distributor or mail the coupon below.

GAR WOOD INDUSTRIES, INC.

Wayne, Michigan • Richmond, Calif.

MAIL FOR SPECIFICATIONS

Customer Service Department CCJ-2
Gar Wood Industries, Inc., Wayne, Michigan

Please send me specifications on Gar Wood 7000 lb. winches.

*Name*_____

*Title*_____

*Company*_____

*Address*_____

G&O *Radiators*

41st Year

They're Good

THE G & O MANUFACTURING CO.

NEW HAVEN CONNECTICUT

"KAY LAB" FOR DEPENDABLE QUALITY PRODUCTS



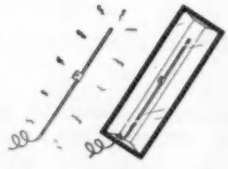
"STOP-IT" SAFETY FLASHER

Finest flasher made. Makes lights flash on-and-off. Used for flashing warning signals and directional signals. Available in 4 types. Will flash any auto lamp to 64 candlepower, 5 ampere, standard ratings 6 or 12 Volts.



ALTERNATING FLASHER

HEAVY DUTY. Meets requirements of State Laws for alternating flashing signals. Up to 15 amperes, 6 or 12 Volts. No parts to wear out; requires no lubrication, no upkeep. Operates magnetically. Good for lights or horn signals.



MIRROR DEFROSTING ELEMENT

Assures maximum visibility in any weather. Fits all outside mirrors having 1½" space between mirror and back. Easily installed in 30 minutes. Nothing to wear out. Tremendous Safety Factor.

Write for Folders, prices and name of nearest Jobber

MACCHI & COMPANY

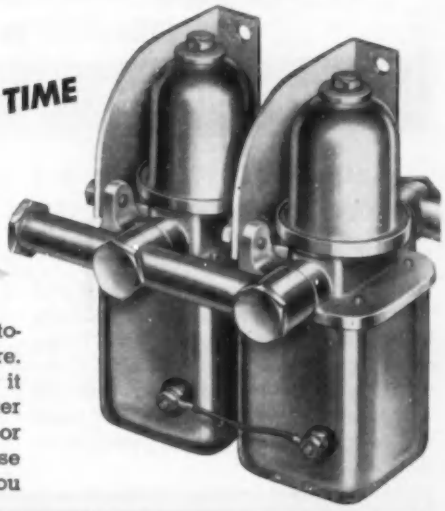
819 Valencia Street, San Francisco 10, Calif.

AUTOPULSE

electric fuel pumps



HELP YOU WIN THE RACE AGAINST TIME



To keep costs down and profits up, your equipment must be kept rolling. Forget one cause of delay, stalling due to vapor lock, by installing Autopulse Electric Fuel Pumps. Autopulse gives the engine a constant supply of fuel at an even pressure. Autopulse is a *pusher pump* — that pushes the fuel, does not draw it to the engine. There is no vapor lock, and "percolation" of the lighter ends of the motor fuel is reduced to the minimum. At high altitude or sea level, in the hottest weather or in the dead of winter, Autopulse insures instant starting, keeps your vehicles on the job — helps you meet fast moving schedules.

Write for folder and name of your nearest Autopulse Dealer.

AUTOPULSE *the heart of your motor*

AUTOPULSE CORPORATION 218 E. Dowland St., Ludington, Mich.

---

now available!

GARRISON

POWER STEERING

for White Trucks

Models 3016 through 3028 and Models WC22 through WC28

Available in kit form for field installation through White factory Branches, Distributors, and Dealers.

Provides effortless steering—With Garrison Power Steering a hydraulic booster cylinder does 80% of the work of steering. Under adverse road conditions only light pressure on the steering wheel gives driver complete control.

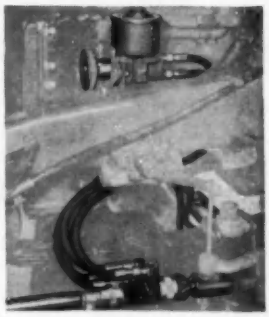
Increases maneuverability—Better steering control enables driver to quickly maneuver in and out of tight places. More work is accomplished each day with far less driver fatigue.

Eliminates jarring road shocks—The power cylinder also serves as a shock absorber, preventing road shocks from reaching the steering mechanism, reducing wear on your equipment.

Available for other makes and models! Garrison Power Steering is available for many makes and models of trucks as factory-approved original equipment or in kit form for easy installation in the field. Ask your dealer or write direct for full details.



Garrison kits have everything needed for installation...can be accomplished in a few hours in even the most limited service shop.



1500 So. Santa Fe Avenue, Los Angeles 21, California

COLE-HERSEE

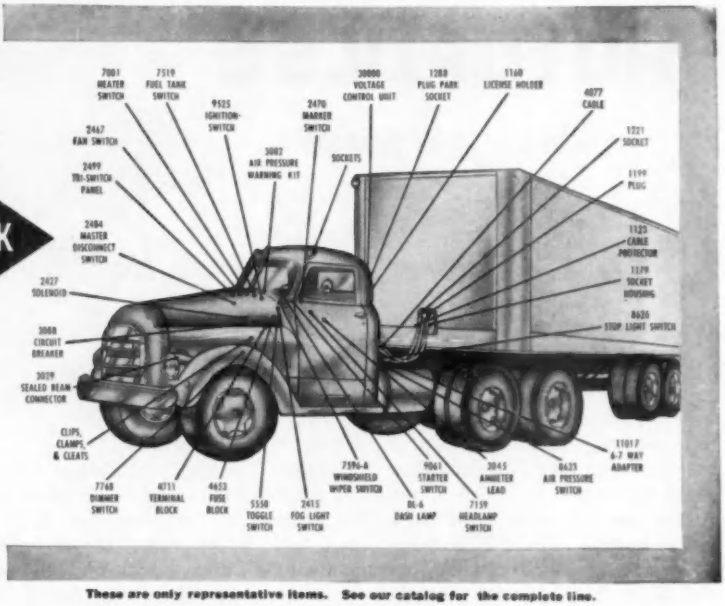
QUALITY ELECTRICAL PRODUCTS

FOR EVERY BUS AND TRUCK

DESIGNED TO CARRY THE HEAVIEST LOADS UNDER THE TOUGHEST CONDITIONS

Fleet operators everywhere recognize and ask for Cole-Hersee electrical products because they know the name Cole-Hersee means quality and dependability. Cole-Hersee units are designed and engineered to meet the higher voltages, heavier loads and tougher service encountered in commercial use.

Cole-Hersee truck and bus products are carried by leading jobbers everywhere. Specify Cole-Hersee for the safest, most dependable, long-lasting electrical products you can buy.



These are only representative items. See our catalog for the complete line.

SEND FOR THE COLE-HERSEE TRUCK AND BUS CATALOG D-188.

COLE-HERSEE
Over 40 Years of Consistently Better Products

20 OLD COLONY AVENUE, BOSTON 27, MASS.

THREAD REPAIRS

Use this kit to cut downtime • speed repair and salvage • reduce component inventories



*Heli-Coil** Shop-packs provide a new method for on-the-spot, permanent repair of damaged threads. It's as easy as this...

Just drill out old fastening and/or female thread, retap with *Heli-Coil* Tap, wind in *Heli-Coil* Insert. In seconds, for pennies, you have original size, better-than-new threads.

Heli-Coil Inserts are made of diamond-shaped, coiled, stainless steel wire. They eliminate plugging, welding, going to larger bolts or studs. Many maintenance men install *Heli-Coil* Inserts at wear points on new equipment during first overhaul to prevent expensive downtime later.

Your distributor can supply you with handy Shop-pack Kits for repairing thread sizes 6-32 to 1½-6 NC and 6-40 to ½-20 NF. (Available also for 14 mm spark plug threads.)

Write today for complete information, price list and name of your nearest Distributor.

*Reg. U.S. Pat. Off.

HELI-COIL CORPORATION
404 Shelter Rock Lane,
Danbury, Conn.

Please send Shop-pack Bulletin No. 724A.

NAME_____

TITLE_____

COMPANY_____

ADDRESS_____

CITY_____ STATE_____

IN CANADA: W. R. WATKINS CO. LTD., 41 Kipling Ave. S., Toronto 18, Ont.

---

6 GOOD REASONS TO RETREAD WITH KIMES *Universal* TREAD GUARD WIRE



- Increases traction in any weather
- Insures greater skid control, faster stops
- Cuts costs through increased tread life
- Guards against costly cuts, bruises
- Dissipates destructive tire heat
- Allows more treads per carcass

Available for Passenger Car Tires, Too.

WRITE FOR FREE LITERATURE TODAY!

HAROLD E. KIMES CORPORATION ROCKFORD, ILLINOIS





ANCHORS AWEIGH

for your fleet

When your equipment is fitted with SCANDINAVIA ZT Brake Blocks, you are assured of low-cost-per-mile brake block maintenance. Whether your problem is brake drum heat checking or more positive stopping, SCANDINAVIA ZT Brake Blocks are the answer!

On the next reline, test-install this remarkable Brake Block that has been endorsed by many leading American motor truck operators.

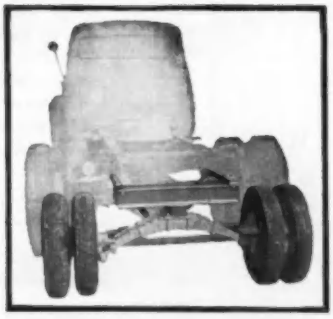
BRAKE BLOCKS • **SCANDINAVIA** • BRAKE LININGS

DIVISION OF SCANDINAVIA BELTING COMPANY, WAREHOUSE: 250 CENTRAL AVENUE, NEWARK 1, N. J.
BOSTON • OFFICE: 744 BROAD STREET, NEWARK 1, N. J. PLANT: CHARLOTTE 1, N. C. • CLEVELAND

SAVE $1000!

with the

new design **FOX** *tandem axle*



- Sells for about ⅔ less than other tandem axles.
- "Follows" around curves . . . eliminates fatigue and tire wear.
- No changes to body or truck frame necessary.
- Axle assembly can be attached or removed in minutes, as needed.

Now you too, can afford a tandem . . . if you buy the *low cost* Fox Tandem! Start making *more profit* through increased payloads . . . by fewer trips and lower operating costs. This new design permits tandem wheels to "follow" around curves thus eliminating tire wear and fighting the wheel. Installation is simple and inexpensive . . . requires no changes to body or frame. Once mounting bracket is attached to truck frame the tandem axle may be installed or removed in a few, easy minutes!

Get extra dollars from extra payloads! Write today!

FOX BODY CO.

BOX 621-C JANESVILLE, WISCONSIN

LAST LONGER BECAUSE THEY'RE MADE STRONGER!

Akro®

TRUCK FLAPS



- Completely **cord-impregnated** rubber provides longer flap life under toughest conditions.
- Akro flaps meet all state codes. Are approved by highway patrols.
- Easy to install — available in wide range of sizes.

Akro *"Automotive Service and Know-How Since 1929"*

THE BUXBAUM COMPANY
CANTON 1, OHIO

more miles per dollar!

Bendix*

ELECTRIC FUEL PUMP



*REG. U. S. PAT. OFF.

for trucks, buses and passenger cars

Learn more about this new and improved fuel pump.
Write for descriptive folder and specifications.

WRITE DEPARTMENT B

ECLIPSE MACHINE DIVISION ELMIRA N. Y.

Bendix AVIATION CORPORATION

Brown aluminum trailers

Series H
Write for Folder H-14

REQUIRES
NO-LUBRICATION
a Plus-Economy When You Buy Brown

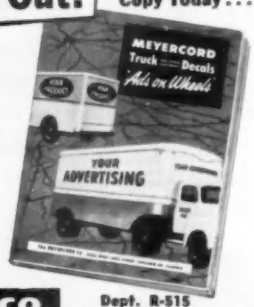
BROWN TRAILERS, INC.
READING • SPOKANE • TOLEDO
WASHINGTON

Sales and Service in Principal Cities

FREE! FULL COLOR
MEYERCORD
TRUCK DECAL BROCHURE

Just Out! Request Your Copy Today . . .

This new full color brochure will show you how Meyercord Truck Decals will help you cut costs, save lay-up time and make valuable, effective "moving billboards" of your trucks. See how you can use Meyercord Truck Decals to identify and advertise your business. Write today.



THE MEYERCORD CO.
World's Largest Decalcomania Manufacturers

Dept. R-515
5323 West Lake Street
Chicago 44, Illinois

Service ALL Diesel Nozzles ✓BETTER ✓FASTER

WITH THIS
BACHARACH "Universal" NOZZLE and INJECTOR TEST SET



Today's most widely used nozzle testing equipment. Factory approved by leading engine and equipment builders.

Available as the "Universal Test Set" illustrated or in selective sets comprising the particular components required for testing Cummins Injectors, GM Injectors or Bosch, etc. Nozzles. Test pump is self-priming, delivers 1200 cu. mm. per stroke, is equipped with 5000 psi gauge, 1.4 pint fuel reservoir, replaceable micronic type filter.

Mail Coupon For **FREE** Service Manual

How to Set up a Diesel Fuel System Maintenance Shop
BUL. 686

BACHARACH INDUSTRIAL INSTRUMENT COMPANY
7301 Penn Ave., Pittsburgh 8, Pa.
☐ Send me FREE copy of your Service Manual Bul. 686
☐ Send me Product Bul. 696 on Universal Nozzle Tester

NAME
COMPANY
STREET
CITY & STATE 2

NT-18

YOCAR ESTAB. 1914

YOUNGSTOWN STEEL CAR CORPORATION
NILES, OHIO

Large scale producers of . . . big weldments on a production basis—die pressed channels for bus, truck and trailer chassis—railway cars, repairs and parts — miscellaneous heavy presswork.

SAVE TIME • MONEY

Install POWER TAKE-OFF DRIVE LINES WITH MUNCIE "UNI-HANG" BEARINGS



Sturdy construction — bronze bushings or cast iron bearings in all popular bore sizes. Completely adjustable brackets. Cadmium plated parts.

SHAFTING WITH KEYWAYS

Saves time — cut to length and install. Keys fitted—¾ to 1¼ round—square and hex.

WRITE US FOR THE NAME OF YOUR NEAREST DISTRIBUTOR

MUNCIE PARTS MFG. CO.
2601 S. JEFFERSON MUNCIE, INDIANA

New! ROAD RUNNER TANDEM AXLE ASSEMBLY



Makes a Tandem Axle Unit Out of Your Single Axle Tractor

- Easily Installed with Little or No Alterations!
- Automatically Locks to Tractor Frame!
- Has Better Traction than Rigid Tandems!
- Rides Better than Most Tandems!
- Pays for Itself in Extra Pay Loads!
- Can be Attached Permanently or Temporarily!

Get More Use From Your Tractors!
Avoid Unnecessary Losses Incurred
When Trading-In Tandem Tractors!

WRITE FOR THE COMPLETE DETAILS TODAY!

ROAD RUNNER CO.
11835 Avenue "O" - Dust Building
Chicago 17, Illinois

CASTEEL

SAFETY WHEEL BLOCKS

STOP

ACCIDENTS!

EQUIP YOUR Truck Fleet with

CASTEEL WHEEL BLOCKS



WB3C

Your best *safety insurance* at loading docks, parking lots, road stops or any hazardous conditions. The deep gripper teeth hold securely on pavement or shoulder . . . even snow or ice. Made of high-strength alloy steel . . . rib supports, round corners . . . easily handled and stored . . . sizes and types for all blocking requirements for the heaviest vehicles.

Ask for new BULLETIN J-56

Your name can be cast on

CALUMET STEEL CASTINGS CORP.
1636 SUMMER STREET HAMMOND, INDIANA

You Get
More *Strength*
—Per Pound—Per Dollar
in a
BOYERTOWN "Better Built" BODY

Thousands of truck buyers every year have discovered this to be true about Boyertown delivery bodies.

To Boyertown's 83 years body building "know-how" and craftsmanship has been added the Plus-Quality of All High Strength Steel Construction in its modern functionally designed



"Better Built" MERCHANDISER Model—8′, 10′ & 12′ Sizes; On Ford Parcel Windshield or Stripped Forward Control Chassis.

Delivery Panel and Merchandiser body models.

High Strength Steel offers the three essentials for today's delivery truck body: lightness, toughness and low maintenance cost per mile. It absorbs the punishing stop-and-go strains of day-in-day-out driving. This additional strength is a premium of longer life and durability at no extra cost.

Delivery truck buyers approve the many Boyertown features as: square usable payload space, easy repairability, economical installation



"Better Built" Panel Delivery Body for Retail, Wholesale Refrigerated Deliveries. On Flat Face Cowl Chassis of Your Choice.

of product handling equipment . . . optional sit-stand drive and full square open rear doors.

You buy a "better built" delivery body when you buy a BOYERTOWN! For additional information phone Boyertown 7-2146, write or visit:

BOYERTOWN
AUTO BODY WORKS, Inc.
BOYERTOWN, PENNA.

Index to

This Advertisers' Index is published of the advertising contract. Every rectly. No allowance will be made

AC Spark Plug
Electronics Div. 196-197
Guide Lamp Div. 318-319
AP Parts Corp. 354
Acme Quality Paints, Inc. 303
Aeroquip Corp. 295
Alan Wood Steel Co. 342
Albertson & Co., Inc. 203
Alexander-Tagg Industries .. 175
Allied Motor Parts Co. 358
Aluminum Co. of Amer. 185
American Brakeblok Div. ... 337
American Chain & Cable Co. 176
American Hammered Div. 207
American Rayon Institute 362-363
American Seating Co. 166
American Steel & Wire Div. .. 351
American Steel Foundries 300-301
American Telephone & Telegraph Co. 146-147
Anthes Force Oiler Co. 310
Anthony Co. 242
Armstrong Rubber Co. 62
Auto Specialties Mfg. Co. 3rd Cover
Autocar Div. White Motor Co 65
Automotive & Aircraft Div. Amer. Chain & Cable Co. .. 176
Autopulse Corp. 383

Bacharach Industrial Instrument Co. 386
Bartlett Trailer Corp. 248
Belden Mfg. Co. 369
Bell Telephone System ...146-147
Bendix Aviation Corp.
Eclipse Machine Div. 386
Marshall-Eclipse Div. 171
Products Div. 165
Zenith Carburetor Div..... 267
Bendix-Westinghouse Automotive Air Brake Co. ..236-237-297
Betts Machine Co. 202
Bishman Mfg. Co. 338
Black & Decker Mfg. Co. 263
Blackhawk Mfg. Co. 26-27
Bolser Corp. 260
Bonney Forge & Tool Works.. 224
Bostrom Mfg. Co. 51
Boyertown Auto Body Wks. .. 387
Branick Products Co. 258
Breeze Corporations 10
Brown Trailers, Inc. 386
Brunner Mfg. Co. 163
Budd Company 276-277
Buxbaum Co. 385

Calumet Steel Castings Corp.. 387
Cam Tool Co 350
Cedar Rapids Engineering Co. 30
Century Gas Equipment Co. .. 274
Champion Spark Plug Co. .304-305
Chevrolet Div. G.M.....34-35
Chicago Pneumatic Tool Co. 360-361
Choldun Mfg. Corp..... 376
Chrysler Corporation (Parts) 155
Cities Service Oil Co. 153
Clark Equipment Co. 195
Classified Advertisement 380
Clevite Service Div. 353
Cloyes Gear Works, Inc. 379
Cole-Hersee Co. 384
Columbia-Geneva Steel Div. .. 351
Continental Motors Corp. 285
Contour Truck Guards 282
Cooper Tire & Rubber Co. ... 335
Cordomatic 283

Dana Corp. (Spicer) 264-265
Dayton Rubber Co.
Automotive Div. 289
Tire Div. 390
Dayton Steel Foundry Co. 317
Delco-Remy Div. 232-233
Diamond T Motor Car Co. 330-331
Dietz Co., R. E. 299
Dill Mfg. Co. 328
Ditzler Color Div. 326
Divco Corp. 275
Dodge Div. Chrysler Corp. 2nd Cover
Dole Refrigerating Co. 12
Dole Valve Co. 252
Dow Chemical Co. 322-323-341
Dunlop Tire & Rubber Corp. 366
du Pont de Nemours Co., Inc.
Explosives Dept. 177
Fabrics Div. 343
Nylon Tarpaulins 67
Nylon Tire Cord 247
Zerex & Zerone 306-307

East Akron Ratchet & Mfg. Co. 357
Eaton Mfg. Co.
Axle Div. 332
Valve Div. 291
Eberhard Mfg. Co. 234
Echlin Mfg. Co. 268-269
Electric Auto Lite Co.
Spark Plug Div. 228-229
Evans Products Co. 239
Everhot Mfg. Co. 370

F & B Mfg. Co. 157
Fawick Brake Div. 314
Federal Mogul Service Div.
Federal-Mogul-Bower Bearings Inc. 320
Ford Motor Co.
Parts & Service 145
Trucks 286-287
Foster Built Bunkers 246
Four Wheel Drive Auto Co. Back Cover
Fox Body Co. 385
Fram Corp. 259
Frank-Dewey Co. 235
Frink Sno Plows, Inc. 380
Fruehauf Trailer Co. 222-223
Fuller Mfg. Co. 28

G & O Mfg. Co. 382
Gar Wood Industries 382
Garrison Mfg. Co. 383
Gates Rubber Co. 309
General Electric Co.
Lamp Div. 355
Refrigeration 339
General Tire & Rubber Co. .. 149
Gillett & Eaton, Inc. 23
Goodrich Co., B. F. 31
Goodyear Tire & Rubber Co.
Airfoam 11
Batteries 4
Metal Products 58-59
Gould-National Batteries, Inc. 21
Grey Rock Div. 32
Griffin Lamp Co. 325
Grote Mfg. Co. 192
Gulf Oil Corp. 209
Gunite Foundries 344

Hancock Diesel Service Co.... 370
Hansen Mfg. Co., A. L. 308
Harnischfeger Corp. 345
Hastings Mfg. Co. 365
Hawkinson Co., Paul E. 364
Hein Werner Corp. 191
Heli Coil Corp. 384
Hendrickson Mfg. Co. 373
Hennessy Sales Co., Jack P. .. 380
Hertz Truck Rental System .. 187
Highway Trailer Co. 340
Hock Paints, Inc. 288
Holan Corp., J. H. 279
Holley Carburetor Co. 231
Hoof Products Co. 164
Hunter Mfg. Co. 374
Hutchens & Son Metal Products 327

Advertisers

as a convenience, and not as part care will be taken to index cor- for errors or failure to insert

Ideal Corp. 178
Imperial Brass Mfg. Co. 210
Ingersoll-Rand 226-227
International Harvester Co. .. 68

Johns Manville 348
Joyce-Cridland Co. 186

K-D Lamp Co. 270
K-D Mfg. Co. 182
Kaiser Aluminum & Chemical Sales Corp. 298
Ken Tool Mfg. Co. 380
Kester Solder Co. 199
Kimes Corp., Harold E. 384
King-Seeley Corp. 200
Kinnear Mfg. Co. 190

L-O-F Glass Fibers Co. 367
Laitner Brush Co. 262
Lamson & Sessions Co. 194
Larco, Inc. 372
Lee Rubber & Tire Co. 13
Leece-Neville Co. 241
Lempco Products 220
Libbey-Owens-Ford Glass Co. 167
Lincoln Engineering Co. ..292-293
Linde Air Products Co. 278
Lipe-Rollway Corp. 44-45
Luber-Finer, Inc. 379
Lubriplate Div. Fiske Bros. Refining Co. 377

Macchi & Co. 382
Mack Mfg. Corp. 158-159
Magnus Chemical Co. 206
Malsbary Mfg. Co. 230
Marquette Mfg. Co. 294
McQuay-Norris Mfg. Co. 251
Mechanics Universal Joint Div. 334
Meyercord Co. 386
Midland Steel Products Co. .. 213
Milwaukee Dustless Brush Co. 372
Miner Inc., W. H. 329
Moraine Products Div. 216-217
Motorola Communications & Electronics, Inc. 249
Muncie Parts Mfg. Co.....198-386

National Automotive Parts Assn. 244-245
National Tube Div. 351
Neway Equipment Co. 33
Niehoff & Co., C. E. 172

Oakite Products, Inc. 14
Olson Corp., J. B. E. 1
Oshkosh Motor Truck, Inc 49
Owatonna Tool Co. 212

P & D Mfg. Co. 168
P & G Mfg. Co. 372
Packard Electric Div. 204-205
Penn Body Div. 240
Perfect Circle Corp. 16
Permatex Co., Inc. 296
Phillips Petroleum Co. 201
Pollard Co., C. E. 214
Power Motor Fuel Sales Co. . 312
Practical Mfg. Co. 280
Prior Products, Inc. 273
Pure Oil Co. 173-174-183
Purolator Products, Inc..... 281

Raybestos Div. Raybestos-Manhattan, Inc. 37
Reo Motors, Inc. .....254 thru 257
Revere Copper & Brass, Inc. 188-189
Rich Mfg. Corp. 184
Rinck-McIlwaine, Inc. 374
Road Runner Co. 387
Ross & White Co. 50
Ross Gear & Tool Co. 161

Scandinavia Belting Co. 385
Schrader's Son Div., A..... 221
Sealed Power Corp. 8
Seiberling Rubber Co. 371
Service Recorder Co. 170
Sherwin-Williams Co. 151
Signal-Stat Corp. 215
Simplex Fifth Wheel Co. 36
Sinclair Refining Co. 63
Smith Corp., A. O. 225
Snap-on Tools Corp. 193
Socony-Mobil Oil Co. 40-41
Spring Packing Co. 250
Standard Crankshaft & Hydraulic Co. 370
Standard Motor Products, Inc. 272
Standard Oil Co. (Calif.) 29
Standard Oil Co. (Ind.)..... 346
Stant Mfg. Co. 377
Stratoflex, Inc. 380
Stewart-Warner Corp. 266
Studebaker-Packard Corp. ... 211
Sunnen Products Co. 349
Sundstrand Machine Tool Co. 55

Teleflex Inc. 377
Tennessee Coal & Iron Div. .. 351
Texas Company 6-7
Thermoid Co. 356
Thermo-King 378
Thompson Products
Service Div. 179
Michigan Plant 375
Thor Power Tool Co. 57
Timken-Detroit Axle Co. 60-61-253
Timken-Detroit Brake Div. .. 347
Timken Roller Bearing Co. .. 48
Tire Retreading Institute ... 290
Toledo Steel Products Div. 381
Trailmobile, Inc. 46-47
Tropic-Aire, Inc. 243
Truckstell Mfg. Co 208
Trucktor Corp. 352
Truk A Door Co. 364
Tulsa-Winch Div. 284

US Axle Co. 324
United Motors System 316
United States Rubber Co.
Batteries 169
Tires 302
United States Steel Corp. ... 351
United States Steel Supply Div. 351

Valvoline Oil Co. 368
Vapor Blast Mfg. Co..... 359
Vapor Heating Corp. 22
Vickers, Inc. 143

WGB Oil Clarifier Corp. 374
Wagner Electric Corp.
Air Compressor 15
Brake Fluid 24-25
Tachograph 321
Walker Mfg. Co. 180-181-271
Walter Motor Truck Co. 336
Warner & Swasey Co.
(Duplex Div.) 379
Waukeska Motor Co. 38-39
Weaver Mfg. Co. 318
White Motor Co. 42-43
Willard Storage Battery Co. . 261
Wisconsin Motor Corp. 238
Wix Corporation 315
Wohlert Corp. 380
Wolf's Head Oil Refining Co . 333
Wood Co., John 218

Yankee Metal Products Corp. 3
York-Hoover Corp. 311
Youngstown Steel Car Corp. . 386

Zollner Corp. 219

New Ideas Pay Off in the Trucking Industry

Excess heat-producing bulk eliminated FROM NEW 8 PLY TRUCK TIRE with a 12-PLY Rating!



Revolutionary 8-Ply Construction makes Dayton Thorobreds 30% Stronger, Lighter, Cooler-Running

Most advanced truck tires on the road today are Dayton Thorobreds. They run cooler, last longer because Dayton's SUPER-STRONG 8-Ply construction permits elimination of excess, heat-producing bulk.

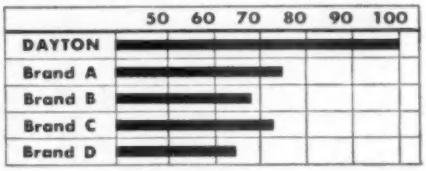
New Daytons, with exclusive 2200 Denier Super Cordura construction, are actually 30% STRONGER than the average of four other leading first line, 10-Ply (12-Ply Rating) tires of comparable size.

With progressive over-the-road haulers—leaders in the trend toward stronger, lighter, vehicle construction offering high revenue volume—Dayton's STRONGER, LIGHTER, COOLER-RUNNING tires afford a new opportunity to lower costs, increase profits.

Amazing Daytons have proved themselves longer-lasting in the nation's largest, most profitable fleets. They give more original mileage; more recaps per tire. In addition, lighter Daytons save weight that can be converted into extra, profitable payload revenue.

In your search for new ways to lower hauling costs, you'll find new 8-Ply Dayton Thorobreds really pay off. Order them now for all your present trucks and trailers, specify them on all your new equipment purchases. For a test set call your Dayton dealer or write direct to Dayton.

CHART OF COMPARATIVE STRENGTHS



MEMBER OF ATA FOUNDATION INC

THE DAYTON RUBBER CO., TIRE DIVISION, DAYTON 1, OHIO

© D. R. 1956

Dayton Thorobred Tires

A COMPLETE LINE OF THOROBRED TRUCK AND PASSENGER CAR TIRES



Looks hard work... *Isn't*

In a matter of seconds, without fuss, Ausco Hydraulic Jacks raise their loads—if the lift is extra high, Hi-Range models handle it easily.

This is not a grunt and groan operation. The lift is smooth and easy, thanks to Ausco's exclusive design features.

Ausco engineering, with close attention to detail, produces jacks with forward-looking features that reduce your down time.

Let Ausco-engineered muscles take the load!

AUSCO *Jacks*



AUTO SPECIALTIES MFG. CO., INC.
St. Joseph, Mich., other plants in Benton Harbor and Hartford, Mich., Windsor, Ont., Canada.

Hard facts for hard-buying fleet owners . . .

No other truck can match FWD for Payload, Safety, Traction!

CHECK THE CHALLENGE in the big new line of FWDs. They are unmatched for payload, safety and traction!

Fitting a fleet for profitable operations calls for proof and that's where FWD has been closing hundreds of new sales. Whatever your heavy-duty truck requirements, it will pay you to look at these FWD facts:

Petroleum carriers are hauling up to 300 extra gallons per run with the new FWDs. The new FWD One-Man Cab is giving 3½ extra feet or 10% more cargo cube! New, shorter dimensions plus FWD's scientific weight and power distribution permit up to 20% more king-pin load on the powered front axle for the greatest payload story of them all!

Look at FWD's "get-there" traction and safety. Independent tests by a leading university engineering project proved four wheel drive delivers up to 82% greater traction than rear wheel drive even when it's slippery. Tire wear savings proved as high as 37%. Skidding or "fish-tailing" was practically eliminated and jackknifing was found to be almost impossible. In rough terrain or weather conditions, FWDs are the only trucks that consistently maintain schedules.

A fast-growing list of new FWD customers is proof of confidence . . . but this is more important: 87% of FWD sales are *repeat* sales from fleet buyers who know from experience that FWD is unmatched for payload, safety, and traction!



BIGGER PAYLOAD



GREATER TRACTION



HIGH SPEED SAFETY

FWD heavy-duty trucks are serving profitably in petroleum transport, freight transport, utility line construction and maintenance, oil well exploration and servicing, logging and mining, road maintenance, pipeline hauling and laying, sugar cane transport, snow removal, municipal sanitation, ready-mix concrete, fire fighting (pumpers, tankers, aerials, crash trucks) and many other truck-killing jobs around the world.

BUILDERS OF AMERICA'S FOREMOST HEAVY-DUTY TRUCKS

FWD

MATHEMATIC DESIGN

THE FOUR WHEEL DRIVE AUTO COMPANY

CLINTONVILLE, WISCONSIN · *Canadian Factory,* KITCHENER, ONTARIO